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UNITED STATES DEPARTMENT OF LABOR  
CHILDREN'S BUREAU - - - PUBLICATION No. 178

# THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY

THE ADMINISTRATION OF THE ACT OF CONGRESS OF  
NOVEMBER 23, 1921, FOR FISCAL YEAR ENDED JUNE 30, 1926

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U. S. DEPARTMENT OF LABOR

JAMES J. DAVIS, Secretary

CHILDREN'S BUREAU

GRACE ABBOTT, Chief

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THE ADMINISTRATION OF THE ACT OF CONGRESS  
OF NOVEMBER 23, 1921

FISCAL YEAR ENDED JUNE 30, 1926

2

Bureau Publication No. 178



UNITED STATES  
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1927

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## LETTER OF TRANSMITTAL

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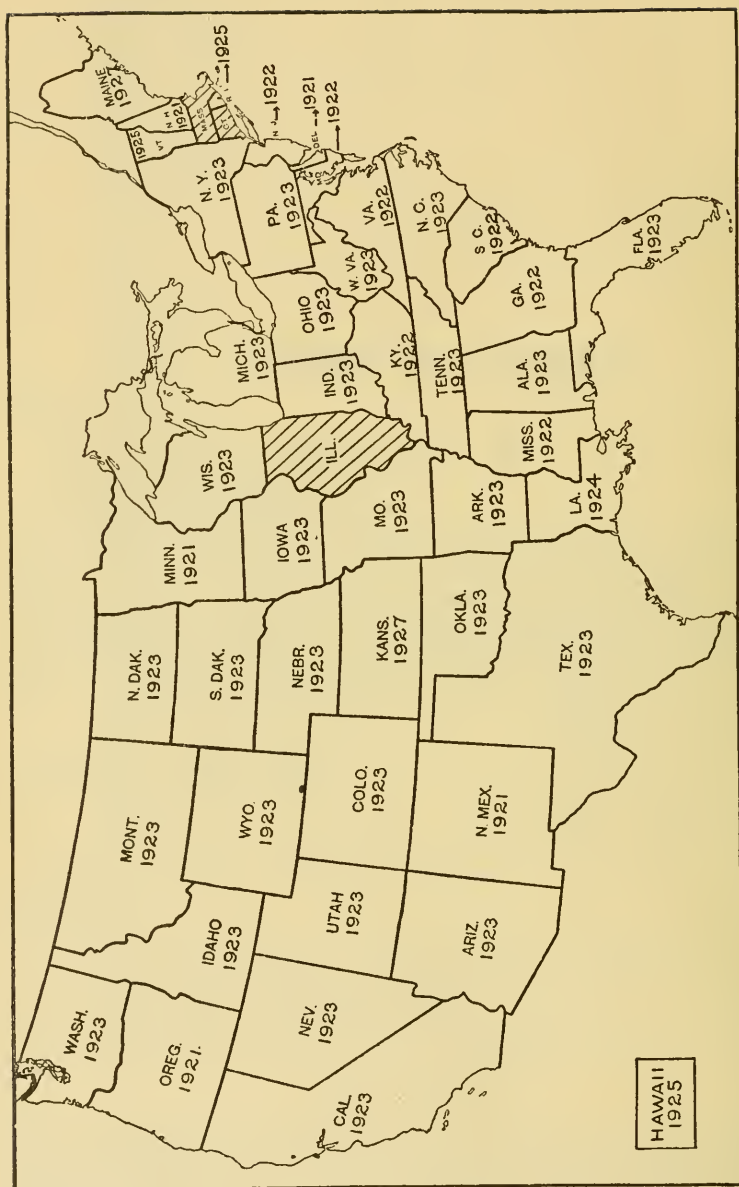
U. S. DEPARTMENT OF LABOR,  
CHILDREN'S BUREAU,  
*Washington, February 28, 1927.*

SIR: There is transmitted herewith a report of the activities undertaken for the promotion of the welfare and hygiene of maternity and infancy under the act of Congress of November 23, 1921, during the fiscal year ended June 30, 1926. Dr. Blanche M. Haines, director of the maternity and infant-hygiene division of the Children's Bureau, was in immediate charge of this work for the bureau and has prepared this report.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

HON. JAMES J. DAVIS,  
*Secretary of Labor.*



STATES ACCEPTING THE BENEFITS OF THE ACT FOR THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY, WITH DATES OF LEGISLATIVE ACCEPTANCE

[Diagonal lines indicate States not cooperating]

# THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY

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## INTRODUCTION

The act for the promotion of the welfare and hygiene of maternity and infancy of November 23, 1921, popularly known as the Shepard-Towner Act, makes available to the States Federal funds to aid in reducing maternal and infant mortality and in promoting the health of mothers and infants.<sup>1</sup>

At the close of the fiscal year 1926, all the States except Connecticut, Illinois, Kansas, Maine, and Massachusetts were cooperating under the provisions of the act. By action of the Sixty-eighth Congress its benefits had also been made available to and accepted by the Territory of Hawaii.<sup>2</sup>

## FUNDS AVAILABLE UNDER THE ACT

The funds authorized by the maternity and infancy act became available in March, 1922. The administration of the funds from that date to June 30, 1925, has been reported.<sup>3</sup> The accompanying table shows the amounts available, the total amounts accepted by the States from the appropriations for the fiscal years 1922, 1923, 1924, and 1925, and the amounts accepted to June 30, 1926, from the appropriation for the fiscal year 1926.

Under the terms of section 2 of the maternity and infancy act "so much of the amount apportioned to any State for any fiscal year as remains unpaid to such State at the close thereof shall be available for expenditures in that State until the close of the succeeding fiscal year."<sup>4</sup>

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<sup>1</sup> See footnote 1, table 1, p. 2. For text of the law see Appendix A, pp. 85-87.

<sup>2</sup> The benefits of the act have since been accepted by the Legislatures of Kansas (Mar. 16, 1927) and Maine (Apr. 12, 1927).

<sup>3</sup> The Promotion of the Welfare and Hygiene of Maternity and Infancy. U. S. Children's Bureau Publications Nos. 137, 146, and 156. Washington, 1924, 1925, and 1926.

<sup>4</sup> In this connection reference may be made to rulings of the Comptroller General of the United States Treasury in regard to the appropriations for carrying out the maternity and infancy act:

"That any interest accruing while the moneys are held by the States inures to the benefit of the United States as owner of the funds and not to the States as trustees and should be accounted for and paid into the United States Treasury accordingly. The law does not contemplate, however, that the money shall be held by the States and bear interest, but shall be promptly applied to the purpose for which furnished, and the amounts should not be furnished in amounts necessarily resulting in large sums being held and thus bearing interest." (May 12, 1922.)

"That in case the State fails to appropriate an amount specifically equal to the amount of the allotment authorized by the Federal appropriation, moneys applied to the same purpose through other State appropriations may not be considered as making the appropriated funds of the State equal to the allotments authorized by the Federal appropriation unless it is established that the fact that the other appropriation was available for the 'services and facilities provided for in this act' controlled the State legislature in making its specific appropriation, in which case there would be justification for considering these moneys in determining that the amount appropriated by the State is equal to the Federal allotment." (June 23, 1923.)



TABLE 1.—Amounts available<sup>1</sup> to States<sup>2</sup> from Federal maternity and infancy funds and amounts accepted<sup>3</sup>

[Statement as of June 30, 1926]

States	Maximum amounts available from 1922 appropriation <sup>4</sup>	Amounts accepted by States from 1922 appropriation	Maximum amounts available from 1923, 1924, 1925, and 1926 appropriations	Amounts accepted by States from—			
				1923 appropriation	1924 appropriation	1925 appropriation	1926 appropriation <sup>5</sup>
Alabama.....	\$10,297.56	\$10,297.56	\$25,836.95	\$25,836.95	\$25,836.95	\$25,836.95	\$25,836.95
Arizona.....	5,753.88	5,000.00	12,253.71	5,000.00	12,253.71	12,253.71	5,000.00
Arkansas.....	8,953.03	5,000.00	21,817.51	6,855.75	16,817.51	13,500.00	14,000.00
California.....	12,731.12	( <sup>6</sup> )	33,112.01	24,279.35	13,114.93	15,620.00	26,730.00
Colorado.....	7,119.83	5,000.00	16,337.20	9,976.99	9,999.33	10,000.00	10,000.00
Connecticut.....	8,114.75	8,114.75	19,311.48	9,655.74			
Delaware.....	5,503.10	5,503.10	11,504.01	11,504.01	11,504.01	11,504.01	11,504.01
Florida.....	7,184.90	5,000.00	16,531.72	8,621.28	16,531.72	16,531.72	16,531.72
Georgia.....	11,533.10	6,750.00	29,530.55	11,000.00	15,250.00	28,490.00	19,270.00
Hawaii.....			( <sup>7</sup> )			11,725.96	5,000.00
Idaho.....	5,974.30	5,000.00	12,912.66	6,250.00	7,912.66	5,691.60	9,308.40
Illinois.....	19,631.03	( <sup>8</sup> )	53,739.10				
Indiana.....	11,611.07	8,199.09	29,763.62	24,995.00	26,250.00	25,750.00	25,000.00
Iowa.....	10,423.56	10,423.56	26,213.60	26,213.60	26,213.60	26,213.60	26,213.60
Kansas.....	8,991.51	8,991.51	21,932.52	12,097.33			
Kentucky.....	10,452.00	10,452.00	26,298.64	26,298.64	26,298.64	26,298.64	26,298.64
Louisiana.....	9,057.50		22,129.80		17,590.60	22,127.79	5,000.00
Maine.....	6,732.66		15,179.77				
Maryland.....	8,270.49	7,913.57	19,777.05	19,277.05	19,269.05	19,164.58	19,277.00
Massachusetts.....	13,691.06		35,981.70				
Michigan.....	13,276.07	13,253.97	34,741.11	34,741.11	34,741.11	34,741.11	34,741.11
Minnesota.....	10,385.44	10,385.44	26,099.65	26,099.65	26,099.65	26,099.65	26,099.65
Mississippi.....	9,039.70	9,039.70	22,076.58	22,076.58	22,076.58	22,076.58	22,076.58
Missouri.....	12,679.67	12,473.15	32,958.19	28,527.38	21,762.17	24,000.00	5,000.00
Montana.....	6,238.31	6,238.31	13,701.91	13,701.91	13,701.91	13,701.91	13,700.00
Nebraska.....	7,924.66	7,924.66	18,743.21	17,661.69	7,409.50	11,915.00	8,845.00
Nevada.....	5,174.63	5,000.00	10,522.06	5,000.00	10,522.00	10,522.00	10,522.00
New Hampshire.....	5,999.61	5,000.00	12,988.31	5,000.00	12,988.31	12,988.31	12,988.31
New Jersey.....	12,119.83	12,119.83	31,284.55	31,284.55	31,284.55	31,284.55	31,284.55
New Mexico.....	5,812.96	5,812.96	12,430.33	12,430.33	12,236.40	12,430.33	12,430.33
New York.....	28,429.70		80,041.78		80,041.78	80,041.78	80,041.78
North Carolina.....	10,773.47	10,773.47	27,259.66	27,259.66	27,259.66	27,259.66	27,259.66
North Dakota.....	6,459.36	5,000.00	14,362.74	6,000.00	6,000.00	8,300.00	5,000.00
Ohio.....	17,993.41	7,187.95	48,843.46	11,900.00	17,393.04	26,606.96	43,843.46
Oklahoma.....	9,575.88	5,000.00	23,679.48	5,000.00	20,934.06	23,679.17	23,679.48
Oregon.....	6,767.35	6,232.61	15,283.46	8,000.00	15,283.46	15,283.46	5,000.00
Pennsylvania.....	24,672.69	24,667.12	68,810.99	68,810.20	68,810.99	68,810.99	68,810.99
Rhode Island.....	6,363.54		14,076.28		4,999.86	14,076.28	5,000.00
South Carolina.....	8,798.54	8,797.50	21,355.65	21,355.65	21,355.65	21,355.47	21,355.65
South Dakota.....	6,436.07	6,436.07	14,293.11	12,844.24	14,272.92	14,293.11	5,000.00
Tennessee.....	10,274.35	5,000.00	25,767.55	18,521.94	22,410.73	25,767.55	15,000.00
Texas.....	15,520.41	9,363.93	41,450.52	32,567.38	40,689.20	41,450.52	35,350.52
Utah.....	6,013.85	5,000.00	13,030.89	6,365.00	13,000.00	13,000.00	5,000.00
Vermont.....	5,795.09	( <sup>9</sup> )	12,376.90		2,775.33	5,000.00	5,000.00
Virginia.....	10,209.61	10,209.61	25,574.00	25,574.00	25,574.00	25,574.00	25,574.00
Washington.....	8,060.53	4,998.70	19,149.55	10,000.00	10,000.00	10,000.00	10,000.00
West Virginia.....	8,302.16	5,000.00	19,871.74	5,000.00	10,000.00	10,000.00	19,871.74
Wisconsin.....	10,938.04	8,995.03	27,751.62	27,750.44	27,751.62	27,751.62	27,751.62
Wyoming.....	5,438.57	4,998.87	11,311.12	5,000.00	11,000.00	6,600.00	6,600.00
Total.....	477,500.00	316,554.02	1,190,000.00	716,333.40	877,217.19	935,318.57	857,796.75

<sup>1</sup> Under the terms of the act each State accepting receives \$5,000 outright; an additional \$5,000 is available to each State if matched; the balance of the appropriation is distributed among the States, if matched, on the basis of population.

<sup>2</sup> On March 10, 1926, the benefits of the act were extended to Hawaii. The amount available for 1925 and 1926 is \$11,725, this increasing the total available to the States and Hawaii from \$1,190,000 to \$1,201,725.96.

<sup>3</sup> Amounts shown are the amounts actually accepted by the States less refunds of unexpended balances returned to the Federal Treasury as of June 30, 1926.

<sup>4</sup> Owing to the fact that only a few months of the 1922 fiscal year remained at the time the appropriation act for that year was passed a full appropriation was not made.

<sup>5</sup> These funds are available until July 1, 1927. Actual acceptances up to June 30, 1926, are here given.

<sup>6</sup> California and Illinois accepted the full amount available and Vermont accepted \$5,000. However, these funds were not spent but were returned to the Federal Treasury.

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**THE FEDERAL BOARD OF MATERNITY AND INFANT HYGIENE**

Section 3 of the act creates a Federal Board of Maternity and Infant Hygiene, to consist of the Chief of the Children's Bureau, the Surgeon General of the Public Health Service, and the United States Commissioner of Education. At its first meeting (April, 1922) this board elected as its chairman the Chief of the Children's Bureau, who has continued to serve in that capacity. The board has interpreted the term "infancy" as ending with the preschool period, and has ruled that Federal funds or State funds used in matching Federal funds can not be expended in subsidies to private agencies.

## STATE ADMINISTRATION

### SUMMARY OF STATE ACTIVITIES

The plan for the promotion of the welfare and hygiene of maternity and infancy for a given State is made by the State agency directing the work within the State. The plan together with the budget of expenditures required to carry it out is submitted to the Federal Board of Maternity and Infant Hygiene for approval. The Federal board has not withheld its approval of any entire State plan or its accompanying budget. Occasionally an item in the plan is questioned if additional information is necessary to clarify it or if it appears to involve the expenditure of maternity and infancy funds for purposes other than the promotion of the welfare and hygiene of maternity and infancy. If the latter is found to be true of any feature of a plan approval is withheld from that feature, but comparatively few such questions have arisen during the administration of the act. The result is that in every case the State program not only is directed by the State but is determined by the agency within the State administering the act.

Each year the State bureau directors meet in conference in Washington, at a time they decide upon, to consider features of their administration upon which they agree that discussion is desirable. In the interim between conferences they exchange with one another new literature which is prepared in their bureaus, as well as information relating to special features of their work. Through this interchange of ideas a certain similarity of activities has developed in many of the States, though the several States may have entirely different methods of carrying on the same activities. Each State has its individual problems relating to its infant mortality rate or its maternal mortality rate, and the plans and the work in the State must meet the local conditions and needs. A plan of work involving supervision of individual mothers and babies is adapted to the needs of a compact little industrial State but would not be feasible in a State in which vast distances combine with cold, snow, or frequent rains to bring about the isolation of the rural people. In such States other programs of instruction and care of mothers and babies must be developed. In States having a high maternal mortality among certain races employing unskilled, unclean, ignorant, and superstitious midwives the State program will include instruction and supervision of the midwives. These are but a few of the various conditions to be met. Consequently the determination of their own plans by the States is an important feature of the administration of the act and adds immeasurably to the adaptation of the work to local needs.

The Chief of the United States Children's Bureau, as well as several members of the staff of the maternity and infant-hygiene division of the Children's Bureau, acts in an advisory capacity to the States if requested to do so. The Federal staff has a knowledge



of work in all the States and may know of features in one State that are adaptable to the needs of other States. Such an interchange of information is sometimes valuable in the development of a State's work.

The welfare and hygiene of the people of the smaller cities, towns, and villages and of the rural districts are the particular concern of the State health departments. The larger cities usually have well-developed health departments that function separately from the State department. Prior to the passage of the maternity and infancy act many of the larger cities had developed programs for the promotion of infant and child welfare, but the States were slower in developing bureaus or divisions of State departments that were concerned with the hygiene or care of the infant and the child outside the cities.

Prior to the passage of the maternity and infancy act only a few States and a few progressive cities had initiated any work directed toward the promotion of the hygiene and welfare of maternity. Coincident with the passage of the act child-hygiene bureaus and divisions were established in many States, and the scope of work in States having existing divisions and bureaus was greatly enlarged. Activities were begun in the field of maternal welfare, and a general program for the promotion of maternal as well as infant welfare was carried to the rural people and the smaller communities of the States cooperating with the Government under the act.

The need for the extension of maternity and infancy work to the less populous districts was apparent. In some States with a high infant mortality the rural infant mortality rate is higher than the urban rate. The development of not only a better type of care for many of the rural mothers and newborn infants at the time of confinement but of any care at all is a problem that faces many of the States in their maternal-welfare programs. Conducting rural work involves difficulties and sometimes hardships for workers that are not met in work in more concentrated populations. The per capita cost for the individuals reached is increased because of the additional time necessitated and the financing of transportation. Yet the need for rural work is apparent, and through the maternity and infancy funds some of this need is being met. The States are enabled to reach out to their remotest corners, lighting them with instruction in the intelligent care of the mothers and babies. In some of the States this could not be done without Federal aid.

Within the borders of every State are communities, groups, and individuals that are not yet fully awake to the importance of prenatal care for the mother in order that she and her child may live and be well, nor to the necessity of frequent inspection of the baby by a trained person to see that the baby develops and grows as he should, nor to the advisability of the examinations, though less frequent, of the preschool child that he, too, shall develop normally and enter school with few or no handicaps.

The State agencies for maternal and child welfare concerned themselves first with surveys and organization of the health resources of the States. The results of such surveys and the types of organizations formed have frequently determined the ways of reaching the communities and the individual mothers and children in the several States. In a number of States county health units

were already in existence. Maternity and infancy work has been carried into such counties by the addition of nurses paid from the maternity and infancy funds. Sometimes the nurse is paid for her full time, sometimes for part of her time. Occasionally a county maternity and infancy nurse and her work have been the nucleus out of which has developed a full-time county health department.

In States in which the county health unit is not a feature the interest of local physicians or county medical societies is secured, and they sponsor and conduct the work; or lay groups are organized with committees to promote, arrange for, or carry on the work that the State initiates. The constant effort of the State is to develop within the communities a recognition of the importance of maternal and infant welfare and of the communities' own responsibility in the matter.

#### TYPE OF WORK

The maternity and infancy act makes possible a type of work which is thoroughly in agreement with the fundamental American principle of providing education for the people—in this instance education in the hygiene of maternity and infancy. The types of work undertaken in the States are quite uniformly educational. The variations depend upon the groups reached and the methods of reaching them. Practically all State work falls into one of three classes:

1. Instruction of the individual through any of the following media—instruction of parents at itinerant conferences conducted by physicians and nurses as to the care of the mother and child, the same type of individual instruction in conferences at permanent centers conducted by physicians and nurses, instruction of mothers through home visits by public-health nurses, and demonstrations in the home in infant and maternal care.

2. Instruction of groups through lectures, motion pictures, slides, charts, and exhibits; classes in infant care for adolescent girls; classes in infant care and prenatal care for mothers; classes in infant care and prenatal care for teachers to prepare them to include maternity and infancy instruction in their class work; instruction of midwives in classes, groups, and occasionally individually; graduate courses for nurses in maternity and infancy work through State or regional conferences and institutes; graduate courses in pediatrics and obstetrics for physicians (usually conducted in conjunction with State or county medical societies).

3. Instruction through the dissemination of literature prepared by the State or Federal Government on phases of infant care and hygiene, child care and management, maternal care, and the fundamental features of the work.

#### PERSONNEL OF THE ADMINISTRATIVE STAFFS

The variations in the types of educational work done in each State are influenced by the number and personnel of the State staff. These in turn are determined by the needs of the State and the size of its budget. Physicians, nurses, dentists, dental hygienists, a few nutritionists, and clerks make up the major part of the personnel.

Physicians directed the work in Hawaii and in 29 States: Arkansas, California, Delaware, Georgia, Idaho, Indiana, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Wisconsin, and Wyoming. Nurses were directors in 9 States: Alabama, Florida, Nebraska, New Hampshire, New Mexico, Oregon, South Carolina, Washington, and West Virginia. Social workers or lay persons were State directors in 5 States: Arizona, Colorado, Iowa, Louisiana, and Nevada.

Including State directors there were 38 physicians on the State staffs for the entire year and 12 for part of the year, who gave full time to maternity and infancy work, and 30 who devoted part of their time to maternity and infancy work for all or part of the year. In addition, numbers of physicians were employed for a day or for a few hours at a time to conduct child-health or prenatal conferences and for other special work.

Public-health nurses were on the staff of every State. Altogether 812 nurses were employed for some period of maternity and infancy service during the year. Of this number 587 were detailed to service in local areas, some serving a county or smaller district and a few serving a larger territory than one county. Many of these nurses did general public-health work, devoting only a fraction of their time to maternity and infancy work and being paid from maternity and infancy funds accordingly. Still others were employed for short periods of time only. However, 181 nurses gave full time to maternity and infancy work during the entire year, and 104 gave full time but were employed for only a part of the year.

Seven States reported the employment of dentists or dental hygienists, usually for short periods of time: Colorado, Iowa, Louisiana, Maryland, Mississippi, Pennsylvania, and Virginia. Only two, Iowa and Louisiana, had full-time dentists regularly on the staff. In Mississippi a dental hygienist was employed jointly by the maternity and infancy division and other divisions of the State board of health.

Special vital-statistics clerks were employed in 24 States to compile statistics relating to births and deaths of infants and puerperal deaths for use in connection with the maternity and infancy program, especially in promotion of birth registration. In a few States special nutrition workers were employed. Other workers included midwife teachers and supervisors, maternity and infant home inspectors, social workers, lecturers, laboratory technicians, stenographers, clerks, accountants, mechanics, and chauffeurs.

Volunteer workers were reported as giving services in 21 States; 2,276 physicians gave services at conferences and centers, and in other capacities; 84 dentists gave their services at dental conferences, and there were 355 nurses giving volunteer service. Among lay workers 3,963 gave volunteer service in connection with sponsoring conferences and centers, doing follow-up work after conferences, and generally promoting the maternity and infancy work in their localities.

#### CONFERENCES

Four types of conference were held during the year: Child-health conferences conducted by physicians; prenatal conferences conducted by physicians; combined prenatal and child-health conferences con-



ducted by physicians; and conferences conducted by nurses, with no physician present and with both children and expectant mothers in attendance. The conferences conducted by physicians in which mothers and children were advised and examined by physicians assisted by a nurse were sometimes itinerant conferences, or again might be conferences at permanent centers held regularly with the children and mothers returning for successive visits for advice or examinations. Conferences of this character were often a part of the full-time county health officer's work in counties to which maternity and infancy nurses were assigned. Conferences conducted by nurses were usually a part of the work in connection with baby-weighing stations or a feature of the work in counties having maternity and infancy nurses.

The child-health conferences conducted by physicians numbered 15,524. The number of infants and preschool children reported as registered was 133,469. (One State did not report the number registered.) The number of children examined was 135,368. The number of visits to these conferences was 183,245. Combined prenatal and child-health conferences conducted by physicians numbered 1,945. At these 28,862 infants and preschool children were registered, and 23,876 were examined. The total number of visits of infants and preschool children to these conferences was 42,569. The total number of infants and preschool children examined by physicians at these two types of conference was 159,244. The total number of visits made by these children to the conferences was 225,814.

There were 2,686 prenatal conferences conducted by physicians in 19 States at which 13,153 prenatal cases were registered and 10,265 women were examined. The number of visits to prenatal conferences was 26,836. At combined prenatal and child-health conferences held by physicians 1,138 prenatal cases were registered, and 289 women were examined. The number of prenatal visits to this type of conference was 1,187. The total number of prenatal cases examined by physicians was 10,554, though 14,291 women were registered and received medical advice. There were 28,023 prenatal visits to both types of conferences. This is almost double the total number of women registered, which shows an average of two visits made to the conferences by each woman registered.

The conferences conducted by nurses, with no physician present, numbered 6,407. At these conferences 31,880 infants and children of preschool age were inspected, and 7,460 mothers were instructed in prenatal care. There were 8,551 visits by expectant mothers and 55,276 visits by children.

A total of nearly 200,000 infants and preschool children examined by physicians or inspected by nurses and a total of more than 20,000 mothers examined by physicians or instructed by physicians or nurses thus had the particular problems in their hygiene and care discussed as individuals. In these discussions the feeding of the baby, the regularity of his habits, his clothes, his bathing, his sleep, and weaning were subjects of discussion, as well as his management. The nutrition of the runabout child, his management, his hygiene, his exercise, his defects and corrections of them were some of the phases of child care that were touched upon in these individual

conferences. The expectant mother received a thorough physical examination in the prenatal conferences if she elected to have one. This included a full physical examination, urinalysis, blood pressure, Wassermann test, and pelvic measurements. If an examination was not desired advice in regard to the hygiene of pregnancy was given. Every prenatal case was advised to consult her physician early and to keep under medical supervision. So far as possible every child needing any care other than the mother could give was referred to the family physician.

Forty-two States and the Territory of Hawaii reported holding child-health conferences conducted by physicians; the State of Nevada, the single exception, held conferences conducted by nurses only. Twenty-four States and Hawaii held prenatal conferences or combined prenatal and child-health conferences conducted by physicians.

The itinerant type of conference is responsible for many of the first and only contacts with individuals. A staff consisting of a physician and a nurse in States where the larger trucks ("health-mobiles," "health caravans," etc.) are used carries information on infant and maternal care into remote rural areas which it would otherwise be long in reaching. Trained people give talks, show exhibits of charts, posters, slides, and motion pictures, and distribute literature as well as examine infants and preschool children. The truck is usually equipped with a room for examining babies and is used in transporting the staff and equipment. The chauffeur or mechanic of the truck is usually the motion-picture operator. In some States a small automobile transports a physician, nurse, and equipment for the itinerant-conference work.

#### PERMANENT PRENATAL AND CHILD-HEALTH CENTERS

The widespread policy of following the itinerant conferences for mothers and babies with a more permanent type of work has resulted in the development of new permanent centers. The centers are of three types: A combined prenatal and child-health center at which mothers and babies are examined in conferences or at which the mother is given advice relating to prenatal, infant, and child care; a child-health center at which only children's conferences are conducted; a prenatal center that concerns itself solely with conferences for the mother.

During the year a total of 283 new health centers were established—135 were combined prenatal and child-health centers, 140 child-health centers, and 8 prenatal centers.

Because the States have directed their efforts to decentralizing the center work and making it a community responsibility it is not possible to give the number of infants, preschool children, and expectant mothers examined at all the permanent centers in the States nor to give the number examined at the new centers established during the year. Numerous centers in the States have grown out of maternity and infancy work which in its initial stage in the community was supported partly or wholly by maternity and infancy funds. These same communities are now carrying on the centers independently of State or Federal aid, except for an occasional

advisory visit or contributions of literature or records. Consequently for the purposes of this report no adequate figures of attendance at center conferences are obtainable, though the attendance at centers conducted by personnel paid by maternity and infancy funds was included in the figures on conferences. It is safe to say that many more children were examined at permanent local centers during the year than have been reported as examined at conferences held by the States. In Michigan 26,552 examinations of infants and preschool children were made during the year at the 77 centers. In Pennsylvania 10,450 children were examined at State and 64,075 children were examined at non-State centers, the number of visits made by children to the State centers was 63,179 and to the non-State centers 262,532.

In the smaller towns and villages very often a permanent center is conducted in the town hall or even in a one-room school. With several sheets or blankets the county nurse may curtain off a cubicle for the examining room, and equip it with a table or two and a set of scales. A physician appears, and an up-to-date conference is conducted. Parents bring their children long distances to these conferences. It is nothing unusual to have a regular attendance of 30 to 40 children. The intervals between conferences vary; in the cities they may be held once a week, regularly on the same day, and in the smaller communities once a month, or in the rural districts once every two or three months. In winter the regular rural conference may have to be discontinued owing to road and weather conditions.

In the full-time county health units (see p. 11) the health officer and nurse frequently reserve one day in the week or month for conferences with mothers and children. These are permanent conferences but do not always mean the establishment of a permanent center.

Another type of permanent conference that may be classed as a permanent center is characterized by the return of the State conference staff to the same localities regularly, annually, semiannually, or quarterly. In Utah a strong permanent lay organization has been formed in the community, and the State staff returns at regular intervals and conducts conferences if local physicians are not available to make the examinations.

The establishment of permanent maternity and infancy centers is the most important development for the future of maternity and infancy work. The local support of a center indicates that the community desires the health of mothers and babies conserved—that it is willing to support a center at which parents may receive advice and instruction in infant feeding, infant and child care and hygiene, and prenatal care, and at which the local physicians give or are paid for their services and the community nurse assists. Such a community has assumed its own responsibility in the matter of maternal and infant welfare.

#### DENTAL HYGIENE

Information in regard to the development and care of the teeth is disseminated at practically all conferences. The importance of the mother's diet during pregnancy when the baby's temporary teeth



are being laid down, of the diet of the small child when the permanent teeth are being formed, of the cleaning of the teeth, and filling of temporary teeth, and of the care of the 6-year molars and early permanent teeth are all given special attention in the course of any conference. This in the opinion of seven States was not enough, and full-time or part-time dentists or dental hygienists were employed by them, and 84 dentists gave volunteer services at dental conferences (see p. 7). At these conferences 32,265 children and 853 expectant mothers were examined and received dental advice.

#### CORRECTION OF DEFECTS

No treatment is given nor any remedial work done in the child-health conferences. If defects or pathological conditions are found in the child examined the parents are referred for corrections to the family physician, or, in the event of indigent cases, to community or county agencies or to treatment clinics. Frequently a copy of the examination report is sent to the family physician.

Almost none of the States have an adequate number of workers on the State staff to follow up all the children seen at the conferences, to urge parents to see that corrections advised are made, or to secure full reports on corrections that parents have had made. About one-half of the States reported on the estimated number of children receiving corrective treatment after they had been examined at child-health conferences. These reports showed that the percentage of children receiving such treatment varied from 10 in two or three States to as high as 70 and 75 in others. Lay committees sponsoring the conference did the follow-up work in New Hampshire with excellent results in the number of corrections secured.

#### COUNTY HEALTH UNITS

There are approximately 300 full-time county health units in the United States. A full-time medical health officer, a nurse, a sanitarian, and a clerk are the ideal minimum for the staff; but many units consist only of a health officer. In many of the States these units seemed to offer the best medium for promoting the welfare and hygiene of maternity and infancy. Such States presented plans including grants of maternity and infancy funds to units for part-time or full-time service for mothers and children. During the year there were 302 counties receiving maternity and infancy funds. A few of the counties receiving funds were not full-time health units. In such the aim was the development of a permanent public health nursing service which would give maternity and infancy work due consideration, such service eventually to be supported by the county.

The difficulty of evaluating the amount of maternity and infancy work in relation to the amount of maternity and infancy money received in a given county has been met by a system of reports and check upon time spent. At the present time a committee with a chairman who is a director from one of the States doing much maternity and infancy work through the medium of the county unit is preparing a plan for recording and evaluating the time and character of the maternity and infancy work in counties receiving maternity and infancy funds. It is hoped that the work of the

committee will be valuable to all States working through county units. The following are some of the features of work conducted in the county units: Home visits to mothers and babies, conferences, classes for mothers, little mothers, and midwives, supervision of midwives, nutrition classes, promoting of immunization against diphtheria, typhoid, and smallpox, and securing of hookworm and other laboratory specimens from mothers and children.

#### HOME VISITS

A total of 587,673 home visits were made to expectant mothers, to infants, and to preschool children. These visits in the homes are to a great degree the work of the county nurses, either nurses employed in the county units or nurses employed in county demonstrations. Some States had nurses making follow-up visits after conferences, which are included in the number of home visits. Other States had a maternity and infancy program which aimed at the instruction of mothers and supervision of babies by means of a home-visiting service by public-health nurses. Rhode Island has such a plan. Pennsylvania has a division of public-health nursing in the State department of health, employing 125 to 135 nurses whose work covers every section of the State. The nurses in this division receive payment from maternity and infancy funds for the actual amount of time spent in maternity and infancy work. In New Jersey as well as in many other States the nurse secures her first information about the baby by calling on the local registrar each morning for his report of births. Prenatal cases are not so easily found. The nurse at the time of her home visit inspects the children, advises the mother, and frequently gives a demonstration of preparation of a feeding, or of bathing, or of other care of the infant. She may collect her laboratory specimens at this time and in many ways assist the parents with suggestions for improving health conditions in the family.

The home visit is a means of reaching people who are not reached through conferences. Instruction is carried directly into the home. This type of work is especially adapted to the more densely populated States. It has advantages also in the more sparsely settled States, but the per capita cost of reaching the individual homes is of course increased by the distances to be traversed between homes.

#### NUTRITION WORK

Instruction relating to nutrition has been a feature of nearly all phases of the maternity and infancy work. Information in regard to the feeding of infants with especial attention to the weaning period and through the preschool years of the child as well as to the diet of the pregnant mother was given at conferences, at home visits, and in the class work. In addition a few States have had special nutrition workers. Kentucky, Missouri, New York, and Ohio have developed nutrition work as a special feature of the maternity and infancy program. The special nutrition work done in Kentucky included two nursery health schools conducted for eight weeks with an enrollment of about 60 children of preschool age,



classes in child care, lectures to normal-school students, groups of mothers, parent-teacher associations, and women's clubs, preparation of nutrition articles for county papers, nutrition exhibits, and cooperation with the home-economics department of the State university in the instruction of high-school girls in 30 communities in regard to child feeding and nutrition. In Missouri the nutrition work was carried on in counties having a full-time health department or public-health nurse. The nutritionist spent one month in each county and met groups of mothers in five communities once each week for four weeks. The subjects discussed in the mothers' classes were "What constitutes a well-balanced diet," "Meal planning and food selections," "Scoring ourselves on our food habits"; 69 classes for mothers were conducted. The Ohio nutrition program consisted largely of class and lecture work. In New York 9 courses or series of classes in nutrition were given for nurses and 40 lectures to lay groups. Assistance was given also in the preparation of dietaries for 12 institutions for children, day nurseries, etc., radio talks were given, and charts and leaflets on nutrition were prepared.

#### PROMOTION OF BREAST FEEDING

More attention was given to promoting breast feeding in the year 1926 than in any preceding year of the cooperation of the States with the Federal Government under the maternity and infancy act. In 1924 the New York Division of Maternity, Infancy, and Child Hygiene had carried on in Nassau County a breast-feeding campaign and demonstration in which 2,815 babies were under observation. In the spring of the same year Michigan also had conducted a breast-feeding survey and campaign in one county having a high infant mortality, 149 babies being under observation. In April, 1925, Cortland County, N. Y., was selected for a breast-feeding demonstration; and Michigan began in 1925 a series of county-wide campaigns on breast feeding that have been continued through the year under review (see p. 44). Ten counties in the latter State have had breast-feeding campaigns. Thirty States and Hawaii have made special efforts to promote breast feeding through education of the public as to its importance. Charts, talks, lectures, and instruction of prenatal cases in regard to the desirability of breast feeding are all a part of the routine educational work in this field. Missouri has used a film on the subject.

The higher death rate among artificially-fed infants than among breast-fed infants has directed attention to the influence of the type of feeding on infant mortality. The educational work has included the importance of keeping the infant on his mother's milk and of teaching mothers how to maintain their supply of breast milk.

#### PRENATAL CARE

Supervision of every pregnant woman during her pregnancy and a high type of care at the time of her confinement offer the best solution of the problem of high maternal mortality in this country. This also should effect a greater reduction in our infant mortality in the United States than has been achieved. More than 25 per

cent of the maternal deaths are due to puerperal albuminuria and convulsions. Many of these deaths could be prevented if the mother were given proper care early in the prenatal period. The States have recognized the problems involved in lowering maternal mortality, and each State has sought the means best adapted to its population to instruct its mothers on the need for prenatal care and to urge them to place themselves under the supervision of their physicians early in pregnancy.

Relatively few expectant mothers are reached through prenatal conferences or in home visits, although 24 States and Hawaii reported 2,686 prenatal conferences and 1,945 combined prenatal and child-health conferences at which more than 14,000 prenatal cases were given examinations or received advice on prenatal care. In addition 7,460 women were instructed in prenatal care at conferences conducted by nurses. A measure that has reached further has been the sending of prenatal letters—one for each month of pregnancy. The prenatal cases are registered for the letters by the women themselves, by their physicians, nurses, or midwives. There were 41,775 women registered for prenatal letters, and 213,724 pieces of literature on prenatal care prepared by the States, the United States Children's Bureau, and other agencies were distributed. It has been estimated that 179,464 expectant mothers were reached during the year under review, but this estimate probably is lower than the number of actual contacts made. It is a custom in many States to assume that the mothers who bring babies to the conferences are potential mothers of other babies, and prenatal advice is given at the infant conference in addition to the advice given on infant care.

In addition to its regular prenatal-conference work (see p. 56) New York State, with the cooperation of the Maternity Center Association of New York, has continued a demonstration of maternity work in Tioga County begun in 1925. The nursing staff called on the expectant mothers, urging them to go to their physicians early in pregnancy. The nurses visited each case frequently during the pregnancy, gave some service at time of delivery, and made many postpartum calls. The results of the work were astonishingly good. This demonstration was undertaken in order to demonstrate special technique and model methods adapted to rural communities. Four nurses were assigned to this work in the fiscal year under review. Prenatal centers have been established in the two largest towns of the county, to which prospective mothers may go for consultation; the nurses also continued to visit the mothers in their own homes and assisted at 58 confinements. At the end of the first year of the demonstration more than half of the pregnant women in the county had been under care. The nurses made 3,020 visits to patients in their own homes; and 226 visits were made by patients to the centers, some of the patients traveling more than 24 miles. There had been no maternal deaths among the 151 mothers confined during the year. Much appreciation of the service rendered by the demonstration was expressed by both the mothers and the physicians of the county.

In Newaygo County, Mich., a prenatal-education program which includes nurses' visits and nursing supervision of prenatal cases as well as the patient's early consultation with her physician was begun in January, 1926 (see p. 44). It was found that 34 of the 124 cases visited were not under the care of a physician; and of the 90 under

physicians' care, many were not calling regularly upon the physician, even though some of these had abnormal symptoms (which had been disregarded by the patients as of little importance). They were urged to consult their physicians regularly, and the symptoms were reported to the physicians. An analysis of the ages of the mothers reached by prenatal instruction showed that 71 of them were between the ages of 21 and 31. Thus the majority of the women were being reached early in their childbearing age and establishing habits of prenatal care that should have a decided influence on future pregnancies.

This program is one method of raising the standards of prenatal care in the county. Already many more expectant mothers are getting regular medical supervision earlier than they would have received if had they not been instructed as to the need for prenatal care.

#### CARE DURING AND AFTER CONFINEMENT

If every woman who goes through childbirth could have the best type of obstetrical care that the most conscientious and capable obstetricians know how to give and do give, the 37 per cent of maternal deaths due to sepsis would so diminish that the maternal death rate would no longer be a cause of so much concern in the United States. The same type of care would lower maternal mortality from other causes such as hemorrhage, accidents of labor, phlegmasia alba dolens, and embolism. A better type of confinement and postpartum care would also lessen neonatal mortality in the United States. There are great difficulties in the way of supplying the best type of care to every woman in the Nation during and after childbirth. Vast distances and isolation resulting from the heavy snows and ice, from all but impassable mountain ranges, and from equally impassable rivers are factors rendering medical service to many women at the time of childbirth extremely difficult. Moreover, we are not a homogeneous people. Racial groups such as Negroes and Indians still have primitive methods of dealing with childbirth. European immigrants have brought Old World ideas of midwifery attendance that include having a trained and licensed midwife with usually a fair and sometimes an excellent training in midwifery; but in this country comparatively few midwives have had training, and the result has been a poorer type of midwifery service for this group of people. The high maternal mortality rate among negroes may be correlated with the large number and the prevailing ignorance of negro midwives.

The first problem in care at childbirth that has confronted the States was to assist local communities in determining how medical and nursing care at childbirth and during the lying-in period might be made available for the great numbers of mothers that had no care at childbirth save that of husbands or neighbors. A second problem was how to raise the standards of midwifery practice among all types of midwife, eliminating the most unfit (see p. 17). A third problem was how to promote among all obstetricians the standards and practices which would result in the smallest proportion of maternal deaths that the best American obstetricians have.

The problem of obtaining care at confinement is being met in a limited way by the increase in the United States of county, com-



munity, and rural hospitals giving maternity care. Fifty-six per cent of the counties in the United States were without hospitals in 1920; five years later this percentage had been reduced to 46. The problem, however, is not only to establish hospitals in the counties in which they are still lacking but to educate the community to utilize them where they have been established. Before the educational campaign can be undertaken, however, we must know that the hospital standards of obstetrical practice are adequate. Hospital provision was available in 1920 for approximately 40 per cent of the births in the United States but only 14 per cent of the births of that year occurred in hospitals.<sup>1</sup> A similar situation was revealed in Michigan by the State survey in 1924 of maternity-bed capacity in 111 hospitals. More beds were found to be available than had been used, but more hospitals were needed in certain sections. Since 1920, as was previously stated, the number of counties having hospitals has considerably increased, and this means that the maternity-bed facilities have been extended (even though these are mainly general hospitals), because 90 per cent of the hospital obstetrical work, it has been found, is done in the maternity departments of the general hospitals.<sup>2</sup> About the quality of the service thus offered, however, information is meager.

In this connection it is interesting to note that under a law passed in 1925 the California Bureau of Child Hygiene is inspecting and licensing maternity homes and also hospitals that include maternity cases as part of their activities. From October, 1925, to June, 1926, licenses were recommended for 173 hospitals and homes with a bed capacity of 935. Licenses were withheld if the institution had not been up to standard. The work of inspection was not completed at the end of the year under review.

A similar survey was made in South Dakota under a law giving the State board of health authority to inspect and license maternity homes and maternity departments of general hospitals. During the last fiscal year 3,009 patients were reported delivered in maternity departments of the general hospitals and 363 in the maternity homes of the State. Half of the 64 organized counties of the State were found to be without hospitals, and 19 counties had neither hospitals nor maternity homes. One of the 19 counties, with a population of 1,800, had no doctor and no nurse.

The standards of obstetrical care given in the hospitals and the type of supervision given by the State depend upon what the public is educated to demand. What the mothers themselves learn as to their needs is therefore a factor in securing the necessary care, whether in hospitals or in the homes. A demonstration in nursing care is being supplied in Tioga County, N. Y. (See p. 14.) Virginia is conducting classes for physicians' helpers in which the rudiments of confinement nursing are taught to groups of white women and of negro women. In cooperation with State and county medical societies and university-extension groups a number of States are conducting courses and lectures on obstetrics and prenatal care before

<sup>1</sup> Rude, Anna E.: "The Sheppard-Towner Act in relation to public health." *Journal of the American Medical Association*, vol. 79, no. 12 (Sept. 16, 1922), pp. 959-964.

<sup>2</sup> Hospital Service in the United States; fifth presentation of hospital statistics by the council on medical education and hospitals of the American Medical Association, 1926, p. 1010. Reprinted from the hospital number of the *Journal of the American Medical Association*, Apr. 3, 1926.

medical societies. Minnesota has prenatal conferences held by a prominent obstetrician, to which local physicians are invited. In New York during the fiscal year under review 15 graduate courses in obstetrics were conducted in various sections of the State, the towns in which the courses were given being selected so as to make them available to the greatest number of physicians; 23 counties were reached by the courses. Kentucky reported courses in obstetrics given in connection with negro health week and alumni week at one of the medical colleges. In Maryland the bureau of child hygiene cooperated with the extension service of the University of Maryland in giving a course of six lectures on obstetrics to physicians in three counties of the State. The State medical societies of several States include lectures on obstetrics in their regional institutes.

#### MIDWIVES

The registering, licensing, regulating, supervising, and instructing of midwives has continued throughout the year under review, and several States have made surveys of midwives. Most States have authority by law or through general power granted to the State health officer to exercise some supervision over the practice of midwives, and many of the States cooperating under the maternity and infancy act are invoking that power and giving definite attention to the control and improvement of the midwives within their borders. The standards for qualifications to practice vary in the States. New Jersey requires that midwives must have had a course in a recognized school of midwifery. The State is districted with a midwife supervisor (a nurse) in each district. County meetings are held at intervals, and a State meeting is an annual event. The type of work is excellent, and the maternal mortality rate in New Jersey midwife practice is low. The intensive midwife program begun in four counties of Pennsylvania in 1923 and extended to five additional counties in 1925 has been continued. Two women physicians had charge of the instruction and supervision of all midwives in these counties. Assisted by the State nurses they follow up the births the midwives attend, investigate deaths of either mothers or babies, and exercise a close supervision over the midwives. Both New Jersey and Pennsylvania are dealing with white midwives, mostly of foreign birth. The Southern States—Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia—have many negro midwives. Classes for midwives instructed by nurses or physicians have been instituted in many counties of these States. After the class work, clubs of midwives are organized in some counties with leaders from among their own number. Usually the clubs meet once a month and the members check up on one another's practices and compliance with regulations. The county nurse or county health officer attends the meeting, inspects the midwives' bags, or talks to them on some phase of prenatal care or some procedure of the attendant at delivery. What the midwife should not do is stressed in all instruction as well as what she should do to insure cleanliness at time of delivery. Generally each midwife is obliged to have a Wassermann test and to be vaccinated. In the Southern States much of the supervision of midwives and enforce-

ment of regulations is conducted through the county health officers and county units.

The organization of 1,446 classes for midwives was reported by 14 States. Three other States organized classes but did not report the number. The enrollment was 14,398 exclusive of the number in three States not reporting enrollment.

Instruction of midwives is usually accomplished through classes conducted by white public-health nurses, but Georgia, Alabama, Mississippi, and Texas have employed in either county or State work negro nurses whose duty entirely or in part consists of instruction of groups of midwives. Two negro women physicians are working with negro midwives, one on the State staff in Tennessee and one on the staff of the United States Children's Bureau. The latter worked most of the year in Georgia but was lent to Tennessee for a few weeks to help the negro woman physician there start her work. In Michigan, where many untrained white women give gratuitous services to friends and neighbors in isolated and sparsely settled communities at time of confinement, these attendants at childbirth were included in the groups of women to whom instruction in infant and maternal care was given. Special instruction in natal care was given after the class to this type of midwife. A woman physician and a nurse were engaged in this work. In the States on the Mexican border the Mexican midwives are receiving instruction and supervision similar to that described in connection with the negro midwives.

In all States in which supervision of midwives is a definite part of the State program a constant elimination of unfit, unclean, unscrupulous, and very old midwives is in progress, improvement is being made in the midwives' appearance, equipment, and procedures, and there is a growing sense of responsibility among them in regard to prenatal care for their patients. Moreover, the number of midwives is lessening. In Michigan, for example, the nurse inspector made a state-wide survey of midwives in 1924 and later worked on the unit with the physician in organizing and teaching midwife groups. The number of midwives reporting births in the State decreased from 1,301 in 1922 to 812 in 1925, and the percentage of births attended by midwives decreased from 6.3 to 3.6 in the same period.

#### INSPECTION OF MATERNITY AND INFANT HOMES

The licensing and supervision of maternity and infant homes is usually done in the welfare departments of the States rather than in the State health departments, but 12 States reported inspections of maternity homes or hospitals. Ten of the States inspected 674 homes, one inspected 213 maternity hospitals, and one made unofficial inspections of 6 homes. The total number of inspections made was 1,231.

Nine States reported inspections of infant homes. Eight of them inspected 804 homes, and one made an unofficial inspection of one home. The total number of inspections made was 2,824.

#### CLASSES FOR ADULTS IN INFANT AND PRENATAL CARE

Teaching infant care to women in class groups was reported by 33 States. Thirty-one States (Arizona, California, Colorado, Florida, Georgia, Indiana, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hamp-



shire, New Jersey, New Mexico, New York, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, and Wisconsin) reported the organization of 1,560 mothers' classes with 22,475 women enrolled, exclusive of the numbers in 4 States not reporting on enrollment. One State (Arkansas) reported 18 mothers' group meetings with an attendance of 650, and another (Mississippi) reported 20 hygiene classes organized for high-school girls and adults with an enrollment of 428. Most of the instructors were nurses.

Indiana's State program consisted largely of class work. Three units, each comprising a physician and a nurse, organized 296 mothers' classes during the year with an enrollment of 11,015. So much interest in these courses was evidenced by younger women that the State bureau offered to conduct them for the girls at the normal schools and colleges of the State. The offer was accepted by all the schools except two, where similar instruction had been given earlier. Usually the college set aside five lesson periods in two or three days in order to expedite the work of the State staff. The course was given in 18 colleges and normal schools to an enrollment of 3,189 students. Michigan also had a unit consisting of a physician assisted by a nurse to teach mothers' classes, the groups instructed being mothers and midwives. In Wisconsin and Oklahoma special class work was given to teachers in normal schools or institutions.

Virginia conducted institutes for training in infant and maternal care for "doctors' helpers" and also institutes for parent training. Florida conducted neighborhood institutes, at which neighbor women meeting at different houses in the community were given demonstrations and talks by nurses on phases of maternity and infant care.

#### CORRESPONDENCE COURSES AND PRENATAL LETTERS

Four States (Minnesota, Virginia, Washington, and West Virginia) used correspondence courses as a feature of their work. The enrollment was 5,110. In three of these States the lessons were corrected for the women enrolled.

Nineteen States sent prenatal letters to expectant mothers, the number of letters in the series usually being nine. One was mailed each month of the pregnancy. Sometimes a tenth letter was mailed about the time of the baby's birth. The letters contained advice in regard to the hygiene and care of pregnancy, preparation for the baby, and preparation for confinement and urged the mother to see her physician early in her pregnancy. Appreciation of the letters was evidenced by the numerous letters from mothers to State bureaus expressing gratitude for the help given. The number of mothers registered for letters during the year was 41,775. The number of series of letters sent was 44,655 (this includes the quantities sent to physicians and nurses for local distribution).

#### CLASSES FOR GIRLS IN INFANT CARE

Little mothers' classes or little mothers' leagues have been conducted in a number of States for groups of girls 10 to 15 years of age. The course usually covers the routine care of the baby and the preschool child—the bathing, dressing, and feeding of the baby;

regulation of his habits; methods of preparing formulas; diet of the preschool child; and prevention of children's diseases. Similar classes have been conducted in continuation schools, and groups of high-school and normal-school girls have had like instruction in infant care. The number of States having infant-care classes for girls was 24. There were 1,365 classes organized in which 22,207 girls were enrolled.

Wisconsin has developed a compulsory infant-care course in the public schools with the slogan: "Every Wisconsin girl educated for intelligent motherhood." This was done by the cooperation of the State departments of education and of health. Oklahoma also has included infant care in the public-school curriculum. Michigan's course in infant care has received the indorsement of the State superintendent of public instruction. There were 6,414 girls enrolled in the classes taught by the State staff during the year and 2,337 enrolled in classes taught by county, school, and other nurses.

There is a growing tendency to place infant and child care courses in the public schools. Such instruction can not be measured in terms of lessened infant mortality rates of to-day, but it should show results 5 or 10 years hence not only in lowered infant mortality rates but in the better physical condition of little children.

#### BIRTH AND DEATH REGISTRATION

At the beginning of 1926 the birth-registration area included 33 States and the District of Columbia, or 75.9 per cent of the total estimated population of the United States. These States have satisfactory registration laws and actually register at least 90 per cent of the births. Fifteen States (Alabama, Arizona, Arkansas, Colorado, Georgia, Idaho, Louisiana, Missouri, Nevada, New Mexico, Oklahoma, South Carolina, South Dakota, Tennessee, and Texas), also the Territory of Hawaii, were not in the registration area. Eleven of these States had satisfactory laws for registration but had not achieved sufficiently complete registration. Four States (Georgia, Nevada, South Dakota, and Texas) had unsatisfactory laws. During the year Georgia waged a campaign for an amendment to the State constitution in order to put its registration law on a working basis.<sup>3</sup> Eight States (Alabama, Arizona, Arkansas, Idaho, Louisiana, Missouri, South Carolina, and Tennessee) waged active campaigns during the year in the interest of birth registration.<sup>4</sup>

The death-registration area included at the beginning of the year 1926, 40 States and the District of Columbia, also 24 registration cities in nonregistration States (including 89.4 per cent of the total population of the United States) having satisfactory registration laws and actually registering 90 per cent of the deaths. The eight States not in the area were Arizona, Arkansas,<sup>5</sup> Georgia, Nevada, New Mexico, Oklahoma, South Dakota, and Texas. Four States had satisfactory laws—Arizona, Arkansas, New Mexico, and Oklahoma. The other four had unsatisfactory laws.

<sup>3</sup> This amendment was voted upon and carried by a large majority in the November, 1926, election.

<sup>4</sup> Arizona, Arkansas, and Idaho have since passed the test of the U. S. Census Bureau bringing them into the birth-registration area.

<sup>5</sup> Arizona and Arkansas have since passed the test of the U. S. Census Bureau and have been admitted to the death-registration area.



Some of the States already in the area reported definite work to improve birth registration. Many States sent birth-registration certificates to parents of babies whose births were registered in the State department of health.

A national committee whose slogan is "Every State in the birth and death registration areas by 1930" is assisting the States not in the areas by contributing trained field workers, statisticians, and campaign speakers and by giving money. The committee is composed of representatives from the United States Bureau of the Census, United States Children's Bureau, United States Public Health Service, American Red Cross, United States Chamber of Commerce, two large life-insurance companies, and the National Tuberculosis Association.

#### COMMUNITY DEMONSTRATIONS AND GROUP DEMONSTRATIONS

A total of 288 community demonstrations were reported by 14 States. They included demonstrations of a general maternity and infancy program in a whole county or a smaller territory in a number of States, two county-wide demonstrations of prenatal care (one in New York and one in Michigan), a special demonstration of preschool conferences covering every community in a parish in Louisiana, and district demonstrations for the period of one year in New Jersey of the value of health supervision of babies.

Group demonstrations were reported from 28 States, the total number being 22,622. Many of these were demonstrations before midwives' classes, mothers' classes, and little mothers' classes. They included phases of maternal and infant care, such as making layettes, preparing for confinement, making and sterilizing obstetrical supplies and maternity packs, making the maternity bed, bathing the baby, preparing food, giving sun baths, keeping simple clerical sheet for the physician's information, and making the baby's bed in basket or box.

#### "GET READY FOR SCHOOL" CAMPAIGNS AND MAY DAY CELEBRATIONS

A number of State bureaus of child hygiene cooperated in the nation-wide "Get ready for school" campaign sponsored by the National Parent-Teacher Association and in the celebration of May Day as child-health day in cooperation with the American Child Health Association. In several States the director of the child-hygiene bureau was State chairman for one or both of these activities. The main features of the two campaigns were health conferences at which children who were to enter school in the fall were given physical examinations, and follow-up work to see whether parents secured the necessary medical attention for their children. In some States members of the State staffs assisted with the conference work. In all States literature was supplied, and help was given to local committees upon request in planning their own May Day programs or preschool conferences in connection with the "Get ready for school" campaign.

Since in most States the work done in these two campaigns was largely in the nature of cooperation with the two organizations sponsoring them, rather than a special project of the child-hygiene bureau, separate reports were not generally made on the number of

children examined at the conferences, those examined by State staffs being included in the total number of examinations made at conferences during the year. (See p. 8.) It is estimated, however, that as a result of these campaigns thousands of preschool children received physical examinations at conferences conducted by the State staffs or by local physicians and nurses. The activities of a few of the States in connection with these campaigns may be described briefly as follows:

In Nebraska a state-wide campaign for the examination of preschool children was waged with the assistance of a field worker from the United States Children's Bureau. (See p. 77.)

In California a preschool drive in April and May has been a part of the State program for the past two years. In the year under review 38 counties of the State were covered. Many local communities which cooperated in the campaign in previous years initiated their own drives last year with very little assistance from the State office. By July 1, 1926, 7,325 children had been examined, and a number of counties had not yet reported.

In Virginia an attempt was made to have every child who was to enter school in the fall given a complete physical examination by physicians from the State staff, local health officers, or local physicians. In some places the examinations were sponsored by the health units, in others by public-health nurses, superintendents of schools, rural-school supervisors, or other interested citizens. A State nurse was sent to organize the work in counties not having a county nurse. The State bureau designed a simple record form for recording each child's history and the results of the examination, also a card for the child to present to the primary teacher at the beginning of the school session. Various devices were used to arouse the interest of parents in having their children enter school free from the handicaps caused by remediable physical defects. Many defects were corrected as a result of this campaign.

In South Dakota the division of child hygiene endeavored to secure some observance of May Day as child-health day in all parts of the State. A statement of the plans and suggestions for programs of work were sent to all the superintendents of schools, women's clubs, parent-teacher associations, county nurses, district medical associations, and churches. Twelve counties reported child-health conferences, at which 699 children were examined, and 14 counties reported some other type of educational program on child health on that day.

Ohio extended special aid in the preschool campaign to local parent-teacher associations, the services of pediatricians and nurses having been furnished at 19 child-health conferences up to July 1. Montana reported that about half the local parent-teacher associations cooperated in the preschool campaign and that successful conferences were reported by nearly all participating. In Florida every county in the State was covered in the May Day campaign. Pennsylvania began its preschool campaign in April; and towns all over the State celebrated child-health day with a preschool conference or made it the culmination of several days of special work for preschool children. After child-health day the preschool work was continued in cooperation with the parent-teacher associations. In Utah a campaign for the examination of children who would enter school

in the fall was begun with child-health day. Each local health center was requested to take the lead in the campaign in its own locality and to emphasize the need for these examinations. Indiana reported that in 50 counties of the State child-health day was celebrated by parades, exhibits, lectures, child-health conferences, plays, and other appropriate methods.

#### STATE-WIDE ORGANIZATIONS COOPERATING IN MATERNITY AND INFANCY WORK

Thirty-eight States and the Territory of Hawaii reported state-wide organizations actively cooperating with them. The State parent-teacher association was mentioned most frequently, 31 States reporting active cooperation from this group. The preparation of the preschool child for school was a feature of the program of work outlined by the National Parent-Teacher Association. State organizations of women's clubs cooperated in 25 States, assisting in the "Get ready for school" campaigns and in other ways. The American Red Cross assisted in 12 States, State tuberculosis societies in 12 States, and the Women's Christian Temperance Union in 8 States. The General Federation of Women's Clubs and the National League of Women Voters lent their support to the work in all the States and assisted in particular pieces of work. State medical associations in 5 States gave active support to the work. State university-extension services gave active cooperation in 5 States also. State departments of education were reported as actively cooperating in 6 States and State nurses' associations in 3 States. The following were each reported in 2 States as actively assisting the work: State dental societies, American Association of University Women, State Grange, Women's Auxiliary of the State Medical Association, and county and local superintendents of schools. In addition each of the following groups gave assistance in at least 1 State: Agricultural colleges; commission for the blind; State department of labor; State welfare department; Tuskegee Institute; county governments; church societies; county medical societies and dental associations; public-health associations; Federation for Health Education; hospitals; child-study associations; two farm and two home organizations; American Legion and auxiliary, also men's service clubs; eight fraternal organizations and auxiliaries; and civic and other local societies.

The value and extent of this cooperation can not be estimated. In some instances it represented actual service at conferences with personnel or funds and financial support of a local project; in others it supplied an already organized group for class instruction or partly financed a county or local nursing service for carrying on the maternity and infancy work in a given area.

#### EXTENT OF THE WORK

No figures can represent accurately the extent of the maternity and infancy work, nor can the indirect results of the educational work be measured. The figures used in this summary of State activities cover the work of State staffs and to a limited degree some volunteer service of physicians, nurses, and dentists. To a larger degree than can be reported the work that gets this impetus at the State organization as a center reaches out to unknown distances



through the help of volunteer lay workers. It was not uncommon for a grandmother to listen to a talk or attend a class and say that she would pass the information on to her busier daughter, detained at home with a small family, who for that reason was unable to attend the talk or class. Literature and even prenatal letters are frequently passed around in a neighborhood, so that one copy may be read by several people. Obviously the reported number of mothers, infants, and preschool children with whom contacts have been established is below the actual number of mothers and children reached. The totals of children reached as given in this summary were those with whom contact was made through conferences, nurses' visits, or literature. The totals of expectant mothers represent those seen at prenatal conferences and in nurses' visits and those enrolled for correspondence courses, prenatal letters, literature, and classes for expectant mothers. Under this interpretation the number of infants and preschool children reached during the fiscal year 1926 through the maternity and infancy work of the States was 944,220, and the number of expectant mothers reached was 179,464.

The total number of counties in the States and Hawaii cooperating under the act is 2,827, and during the year under consideration maternity and infancy work was carried on in 1,786 of these counties. Since the beginning of the States' cooperation under the maternity and infancy act 2,313 counties have had maternity and infancy work. Not all the cooperating States accepted the act in the first year of its operation, and some of the latest to accept its benefits have not yet been able to extend the work over all their counties. Other States have given service many times in every county within their borders. Some of the 514 counties not reached by maternity and infancy work in the States administering the maternity and infancy funds have a very small population, some are in the desert or mountain regions, a few are Indian reservations, and several have remained untouched for lack of time or personnel to carry on the work. Twenty-one States reported that every county had been reached during the four-year period of operation of the maternity and infancy act.

#### DISTRIBUTION OF LITERATURE

The activity that has been more far-reaching perhaps than any other in its educational effect is the distribution of literature. Much literature is distributed at health conferences and meetings of various kinds, but the great bulk of it is sent by mail. Scarcely any home is too isolated for postal service, even though weather conditions may make visits to the post office or mail box infrequent. It should be possible, therefore, to reach practically every mother with educational literature, even though it may not be possible to reach her through health conferences, classes, and educational meetings of other types. The quantity of literature distributed during the last fiscal year indicates that the States have taken advantage of this method of health education to a large degree.

During the year nearly 3,200,000 pieces of literature dealing with maternity and infant and child care and hygiene (exclusive of prenatal letters) were distributed by the cooperating States and the Territory of Hawaii.

Twenty-five States furnished itemized lists of the numbers of each publication distributed. A compilation of these figures showed that the literature fell into the following classes, in the order of the number distributed in each class: Infant care, nutrition, child care, prenatal care, and midwifery.

Several States have adopted the policy of sending literature on infant care to the parents of each new baby as soon as its birth is registered. One State sends some instructive literature to mothers every month until the baby is a year old and then sends publications on prenatal care.

The following table shows the number and subject of publications distributed by the cooperating States and Hawaii during the fiscal year ended June 30, 1926:

TABLE 2.—*Publications distributed by States cooperating under the maternity and infancy act, by subject, fiscal year ended June 30, 1926*

States and Territory	Publications distributed dealing with specified subjects							
	Total	Prenatal care	Infant care	Child care	Nutrition	Midwifery	Other subjects	Subject not reported
Total (42 States and Hawaii) <sup>1</sup> .....	3, 192, 919	213, 724	566, 908	233, 008	257, 734	3, 881	290, 356	1, 627, 308
Alabama.....	6, 840	4, 320	2, 520					
Arizona.....	70, 523	5, 401	11, 238	15, 141	18, 322		20, 421	
Arkansas.....	76, 952	5, 566	4, 346	4, 352			62, 688	
California.....	93, 635	12, 889	19, 924	30, 465	29, 557		800	
Colorado.....	18, 550	2, 700	13, 150	2, 700				
Delaware.....	14, 500	1, 500	2, 000	5, 500	2, 000		3, 500	
Florida.....	15, 470	4, 216	900		9, 397	957		
Georgia.....	20, 093	3, 838		15, 786			469	
Hawaii.....	6, 600							6, 600
Idaho.....	7, 839		329	747	5, 938		825	
Indiana.....	145, 243	32, 375	25, 438	48, 939	8, 060		30, 431	
Iowa.....	160, 000							160, 000
Kentucky.....	57, 707	5, 000	9, 161	890	18, 204	142	24, 310	
Louisiana.....	28, 081	6, 470	8, 536	6, 551	1, 653	932	3, 939	
Maryland.....	83, 000	3, 000	53, 000		8, 000		19, 000	
Michigan.....	246, 847	25, 050	219, 947			1, 850		
Minnesota.....	92, 458	7, 427	19, 153	39, 030	230		26, 618	
Mississippi.....	103, 926							103, 926
Missouri.....	25, 450							25, 450
Montana.....	95, 204	8, 658	8, 075	11, 340	25, 301		41, 830	
Nebraska.....	33, 960							33, 960
New Hampshire.....	218, 520							218, 520
New Jersey.....	58, 600							58, 600
New Mexico.....	15, 039							15, 039
New York.....	180, 713	26, 735	37, 049	29, 223	86, 288		1, 418	
North Carolina.....	120, 957	17, 103	50, 578	4, 791	36, 874		11, 611	
North Dakota.....	11, 358	3, 222	3, 222	4, 914				
Ohio.....	100, 000							100, 000
Oklahoma.....	295, 000							295, 000
Oregon.....	12, 000							12, 000
Pennsylvania.....	219, 787							219, 787
Rhode Island.....	35, 322	4, 193	3, 825	1, 982	5, 253		20, 069	
South Carolina.....	45, 440							45, 440
South Dakota.....	26, 500	20, 000	4, 500	2, 000				
Tennessee.....	17, 318	4, 637	2, 016	4, 808	2, 657		3, 200	
Texas.....	77, 797							77, 797
Utah.....	24, 241	2, 801	17, 114	2, 939			1, 387	
Vermont.....	2, 620	823	887	910				
Virginia.....	73, 640	<sup>3</sup> 5, 800	50, 000				17, 840	
Washington.....	6, 500							6, 500
West Virginia.....	85, 355							85, 355
Wisconsin.....	156, 334							156, 334
Wyoming.....	7, 000							7, 000

<sup>1</sup> No report available for Nevada.

<sup>2</sup> Includes bulletins relating to both infant and preschool-child care.

<sup>3</sup> Includes some publications on infant care.



	North Carolina	148	20	4,366	486	17,623	20	6,636	1,012	2,160	1,707	130	1,446	31,950	11,744	11,744
Ohio	22	791	22	791	22	791	22	791	22	791	22	791	22	791	22	791
Oklahoma	10	90	10	90	10	90	10	90	10	90	10	90	10	90	10	90
Oregon	72	634	72	634	72	634	72	634	72	634	72	634	72	634	72	634
Pennsylvania	6,623	63,179	6,623	63,179	6,623	63,179	6,623	63,179	6,623	63,179	6,623	63,179	6,623	63,179	6,623	63,179
Rhode Island	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
South Carolina	204	3,733	204	3,733	204	3,733	204	3,733	204	3,733	204	3,733	204	3,733	204	3,733
South Dakota	168	2,357	168	2,357	168	2,357	168	2,357	168	2,357	168	2,357	168	2,357	168	2,357
Tennessee	399	576	399	576	399	576	399	576	399	576	399	576	399	576	399	576
Texas	341	105	341	105	341	105	341	105	341	105	341	105	341	105	341	105
Utah	19	238	19	238	19	238	19	238	19	238	19	238	19	238	19	238
Vermont	104	7,230	104	7,230	104	7,230	104	7,230	104	7,230	104	7,230	104	7,230	104	7,230
Virginia	87	3,577	87	3,577	87	3,577	87	3,577	87	3,577	87	3,577	87	3,577	87	3,577
Washington	396	290	396	290	396	290	396	290	396	290	396	290	396	290	396	290
West Virginia	96	1,741	96	1,741	96	1,741	96	1,741	96	1,741	96	1,741	96	1,741	96	1,741
Wisconsin																
Wyoming																

<sup>1</sup> Report for 6 months, Jan. 1 to June 30, 1925.

<sup>2</sup> Not reported.

<sup>3</sup> Includes conferences held by State and county nurses: Arkansas, 4 State, 65 county; Montana, 369 State, 73 county; Oklahoma, 5 State, 4 county.

<sup>4</sup> 18 mothers' group meetings with 650 mothers attending and 4 girls' meetings with 254 attending.

<sup>5</sup> A course in parenthood was given in Indiana colleges: 3,189 students enrolled.

<sup>6</sup> 73 classes for mothers and midwives; 22 midwives enrolled, 893 mothers enrolled.

<sup>7</sup> 20 hygiene classes for high-school girls and adults; women and girls enrolled, 428.

<sup>8</sup> 10 county associations organized with 325 midwives enrolled.

<sup>9</sup> Several in each of four counties.

<sup>10</sup> Includes conferences conducted by State and county nurses; State, 41, with 797 children; county, 49, with 837 children.

<sup>11</sup> Includes State activities only (see p. 63 for definition).

<sup>12</sup> 73 classes.

<sup>13</sup> 135 child-health centers and 13 prenatal centers conducted by nurses who return to them at regular intervals.

<sup>14</sup> 75 class meetings with attendance of 2,102.

<sup>15</sup> 88 in attendance.



Some of the literature distributed by the States is secured from various child-health agencies, both governmental and private. Much of it is written by members of the State staffs.

In addition to the publications on the general subjects of infant, prenatal, and child care there were many on special phases of maternity and child care or related subjects. The following titles are representative of the literature distributed: Habit Training, Mental Training, Child Management, Manual for Midwives, List of Equipment for Midwives, Diet Lists, Malnutrition, The Elusive Vitamin, Why Drink Milk, Care of Milk, Preparation of Artificial Food, Breast Feeding, Home Deliveries, Directions for Maternity Packs, Diarrhea and Enteritis, Tonsils and Adenoids, Constipation, Enuresis, Posture, Dental Care, Effects of Decayed Teeth, Clothing, Health Rules, Sunlight for Babies, Baby's Bath, Little Mothers' League Manual, Is Your Child's Birth Recorded? In addition a few States had literature published in Spanish for use among their Spanish-speaking populations. Letters of appreciation received from mothers by the State bureaus and the United States Children's Bureau show the value of this literature to the mothers and their appreciation of it.

Another type of literature distributed by the States to a lesser degree was for the use of physicians, nurses, teachers, and lay workers assisting in the child-health work. It included such bulletins as Standards of Prenatal Care for the Use of Physicians, Standards for Physicians Conducting Conferences in Child-Health Centers (United States Children's Bureau Publications 153 and 154), lessons on child care for the use of teachers, dietaries for use in children's institutions, record blanks for use at health centers, and instructions for organizing child-health conferences.

For details in regard to the Government publications included in this list see pages 78-81 of this report.

### PRINCIPAL ACTIVITIES OF THE INDIVIDUAL STATES

A summary of the work done in the cooperating States as reported to the Federal office in their annual reports under date of July 1, 1926, is given in the following pages. The figures in regard to certain of the main activities are shown in Table 3 on pages 26 and 27.

#### ALABAMA

##### Administrative agency:

State board of health, bureau of child hygiene and public-health nursing, Montgomery.

##### Staff:

Director (nurse), 1 physician (part year), 5 nurses (1 part year, 2 part time), 2 vital-statistics clerks, 1 record clerk (part year), 1 stenographer, 1 bookkeeper (part time). Twenty-seven county nurses were paid for some maternity and infancy work.

##### Activities:

Child-health conferences conducted by physicians—223; children examined—2,199; visits to conferences—2,923. Defects found—2,338; children having defects corrected—402.

Prenatal conferences conducted by physicians—31; prenatal cases examined—124; visits to conferences—198.

Conferences conducted by nurses, no physician present—889; children inspected—2,231; visits of children to conferences—4,866; mothers instructed in prenatal care—3,599.



## Activities—Continued.

Little mothers' classes—29; girls enrolled—358. In addition home-hygiene classes for mothers including instruction in infant care were conducted.

Midwives' classes—20; midwives enrolled—1,642. The midwives' classes have developed into regular monthly conferences in most of the counties. The course is never finished, and midwives thus are kept under constant supervision. Renewal of permit to practice depends on record of attendance at conferences and reporting of births.

Home visits—27,811 (to prenatal cases, 6,355; obstetrical cases, 6; post-natal cases, 2,914; infants, 12,371; preschool children, 6,165).

New prenatal and child-health centers—4 established. They are supported by combined county, State, and maternity and infancy funds.

Talks and lectures by staff—233.

Surveys—2. One was of midwives, the other of birth registration.

Special statistical study—1.

Literature prepared—midwifery study.

Literature distributed—6,840 pieces (Infant Care, 2,520; Prenatal Care, 2,520; Standards, to physicians, 1,800).

A graduate course in pediatrics was offered to 25 county medical societies. Fourteen societies requested the service. A pediatrician from a university outside of the State and the assistant director of the State bureau and a record clerk were sent to each county for a series of clinics covering a period of a week. The number of physicians who attended was 346. The number of infants and preschool children examined was 545. The cases were discussed, the local physicians participating in the discussions. A number of lectures were given on subjects for which no clinical material was available.

Scientific articles published—2.

Nutrition classes were conducted by home demonstration agents, county nurses giving health talks in the classes.

The 27 county nurses that did some maternity and infancy work spent in maternity and infancy work approximately 62 per cent of their time. The plan of the full-time county health unit was in operation. In addition to the nurses, health officers and sanitarians rendered service in the maternity and infancy work.

Plans to improve maternity and infancy nursing service—two nurses specially trained in maternity and infancy work are to supervise the activities of public-health nurses in maternity and infancy work.

Infants born in the State in calendar year 1925—62,316; infants under 1 year of age reached through the work of the bureau during the year under review—34,709; preschool children reached—8,017; expectant mothers reached—15,727.

The State is not in the birth-registration area. The following activities are carried on in an effort to bring it in: Close supervision of midwives in 28 organized counties (60 per cent of the State's population); report for prosecution of physicians found delinquent in the test of the U. S. Census Bureau; notification of parents for each birth recorded; education and propaganda.

Counties in the State—67; counties having maternity and infancy work during the year—27; counties having maternity and infancy work since the acceptance of the maternity and infancy act—27; county that has taken over the maternity and infancy work—1.

The outstanding achievements of the year were the extension of nursing service to four counties not previously organized and to one county already organized which had not a nursing service, the employment of two nurses especially prepared in maternity and infancy work to act as assistant supervisors, and the installation of a system of reporting nursing activities.

## ARIZONA

## Administrative agency:

State board of health, child-hygiene division, Phoenix.

## Staff:

Director (nonprofessional), 3 nurses.

Volunteer assistants—4 physicians, 2 nurses, 10 lay persons.

## Activities:

Child-health conferences conducted by physicians (during last half of year)—95; infants and preschool children registered—529.

Conferences conducted by nurses (during last half of year)—59; children inspected by nurses—833; expectant mothers instructed—35. During the year a total of 230 conferences were held, some combined prenatal and children's and some for children only, some conducted by physicians and nurses and others conducted by nurses only. The attendance was 5,782 (prenatal cases, 370; postnatal cases, 67; infants, 2,731; preschool children, 2,614).

Defects found in infants and children examined—644. The parents had all these corrected.

Little mothers' classes—3; girls enrolled—20.

Mothers' classes—19; mothers attending—1,398.

Home visits—8,537 (prenatal cases seen, 243; postnatal cases, 72; infants, 1,030; preschool children, 1,448).

New permanent child-health centers—2 established through maternity and infancy work. They were supported by local funds.

Talks and lectures by staff—205.

Community demonstrations—9, in 9 counties, consisting of conferences, classes, and lectures on infant and maternal care.

Group demonstrations—124, on infant and prenatal care.

Home demonstrations—1,382, covering various phases of infant and prenatal care.

Literature prepared—a new sheet to insert in the Spanish pamphlet on prenatal care.

Literature distributed—70,523 pieces.

New names registered for prenatal letters—307.

Infants born in the State July 1, 1925, to June 1, 1926—7,910; infants reached by birth-record cards—6,680. These were sent in the effort to improve birth registration. Arizona is not in the birth-registration area, but the model law was passed at the 1926 session of the State legislature.<sup>6</sup> (See also p. 20.)

Prenatal cases reached through the work of the division—585.

Counties in the State—14; counties having maternity and infancy work during the year—5; counties having maternity and infancy work since the acceptance of the maternity and infancy act—14.

The outstanding achievement of the year was the number of corrections of defects in infants and preschool children secured, in that all the defects found were reported as corrected.

## ARKANSAS

## Administrative agency:

State board of health, bureau of child hygiene, Little Rock.

## Staff:

Associate director (physician), 4 nurses, 1 stenographer, 1 chauffeur and mechanic. Eight county nurses were paid for some maternity and infancy work.

Volunteer assistants—physicians, dentists, nurses, and lay persons who assisted at conferences or remained as a committee to carry on work begun through the conference.

## Activities:

Combined prenatal and child-health conferences conducted by physicians—92; prenatal cases registered and instructed—73; infants and preschool children registered and examined—2,758. These were itinerant conferences.

Child-health conferences conducted by physicians—26; infants and preschool children registered and examined—829.

Conferences conducted by staff nurses, no physician present—4; children inspected—155; mothers instructed in prenatal care—14. (For report of 65 conferences conducted by county nurses see p. 31.)

<sup>6</sup>The Bureau of the Census test was made and the State admitted to the birth and death registration areas in the late summer of 1926.

## Activities—Continued.

Defects found in children—10,683. Many parents had the children's defects corrected.

Little mothers' classes—5; girls enrolled—85; number completing course—55. There were 36 lessons in one of the courses.

Mothers' group meetings—18; mothers attending—650.

Girls' group meetings—4; girls attending—254. Personal hygiene was taught.

Midwives enrolled in county classes—226. These classes were continuous county classes conducted by county nurses. Nurses were assigned to work in counties where the midwife situation needed greatest attention. Dental advice was given to mothers at the conferences for themselves and their children.

Home visits by nurses—348. These included visits to expectant mothers, infants, and preschool children, to midwives, and in the interest of birth registration.

New permanent combined prenatal and child-health centers—2 established as a result of the maternity and infancy work. One was supported by combined Red Cross, local, and maternity and infancy funds, the other by combined local and maternity and infancy funds.

Orphan homes inspected—2.

Talks and lectures by staff—236.

Group demonstrations—37. These were demonstrations of the methods of examining children. This type of examination was used in places where facilities were not available for holding the regular conferences. Attendance—1,137 persons.

Campaigns—4. (1) Birth registration: The State was making an effort to be included in the United States birth-registration area, and special emphasis was placed on the work in 41 counties having low birth registration.<sup>6a</sup> Nurses were assigned to work with midwives and to secure records of unreported births. (2) A campaign with midwives for registration of births and better midwifery procedures. (3) A state-wide campaign for immunization of children against diphtheria, typhoid fever, and smallpox. (4) A campaign for the examination of preschool children before entering school. This was sponsored by the parent-teacher association of the State and carried on by 50 communities. The State had the largest number of local parent-teacher associations enrolled for the work in proportion to the number of State affiliations with the National Parent-Teacher Association.

Surveys—2, of handicapped children and of trachoma cases (this is continuous).

Literature distributed—76,952 pieces.

Exhibits conducted by staff—127. Exhibits were lent 10 times; attendance at exhibits—9,258. Motion pictures on health subjects were shown 83 times with an attendance of 17,755—a total attendance at all exhibits of 27,013. Exhibit material prepared—map, posters, charts, films, and equipment.

Scientific article prepared—1.

Nutrition work was shown by exhibits. Instruction in nutrition was part of the work at the conferences.

Local organizations were assisted by the staff in their maternity and infancy work.

County nurses in county units paid from maternity and infancy funds did additional maternity and infancy work which was not included in report of work of staff. They reported visits to 567 infants and 78 mothers and to 65 infants in confinement cases, conducted 65 preschool children's conferences with an attendance of 704 preschool children, and gave 55 talks on maternity and infancy subjects.

Breast feeding was stressed at conferences.

Public-health nurses were trained in maternity and infancy work through an annual institute.

Infants born in the State July 1, 1925, to December 31, 1925, and actually reported (including stillbirths)—20,441. It is estimated that from January 1 to June 30, 1926, there were 19,634 more births (including

<sup>6a</sup> The Bureau of the Census test was made late in 1926, and the State was admitted to the birth and death registration areas early in 1927.



## Activities—Continued.

stillbirths)—a total for the year of 40,075. Infants under 1 year of age reached through the work of the bureau during the year—607; preschool children reached—2,846. These were by actual contact and recorded. Many more were reached through literature sent to parents. Expectant mothers reached—5,566.

Counties in the State—75; counties having maternity and infancy work during the year—48; counties having maternity and infancy work since the acceptance of the maternity and infancy act—75.

The outstanding achievements of the year were the better understanding of the maternity and infancy work on the part of the public and the better registration of births.

## CALIFORNIA

## Administrative agency:

State board of health, bureau of child hygiene, San Francisco.

## Staff:

Director (physician), 1 physician, several pediatricians (service by the day), 1 nurse, 2 maternity-home inspectors (1 part year), 2 vital-statistics clerks (1 part year), 2 stenographers (1 part year, 1 part time), 1 financial clerk, 1 mailing clerk (part year). Thirty-one county nurses were paid for some maternity and infancy work.

Volunteer assistants—61 physicians, 38 nurses, 241 lay persons.

## Activities:

Child-health conferences conducted by physicians—258, of which 76 were arranged by the staff, 182 by county nurses; infants and preschool children registered and examined—3,277, of whom 1,677 were examined by the staff, and approximately 1,600 by physicians in the conferences arranged by county nurses. Visits to conferences—6,373. Approximately one-third of the defects found were ascertained to have been corrected. Conferences conducted by nurses, no physician present—345; visits made to conferences—9,419 (by expectant mothers for advice, 217; by children for inspection, 9,202).

Little mothers' classes—7; girls enrolled—153; lessons in course—12 to 15. Mothers' classes—5; mothers enrolled—107.

Home visits by nurses—11,512 (to prenatal cases, 835; postnatal cases, 1,059; infants and preschool children, 9,618).

New permanent child-health centers—7 established as a result of the work of the bureau. They were supported jointly by maternity and infancy funds and local funds. Prenatal advice was given at the child-health centers.

Maternity homes inspected—259; inspections made—271.

Talks and lectures by staff—250, including 1 by radio. Persons reached—14,191. The audiences included both lay and professional people.

Group demonstrations—8, relating to prenatal care.

Campaigns—2: (1) Birth registration; this is a continuous campaign, the State being districted and each physician circularized once a year and notified of the total number of births he has reported. As a result 200 births not previously reported have been added to the registration list. (2) A campaign was conducted during April and May to secure the examination of preschool children who would enter school in the fall; 38 counties were covered.

Survey—1, of maternity homes and hospitals (not completed).

Literature prepared—Posture, diets (3 revised), outlines for mothers' study clubs.

Literature distributed—93,635 pieces.

New names registered for prenatal letters—1,508; prenatal letters distributed—3,673 sets.

Exhibits conducted by staff—4. Exhibits prepared show (1) safe toys, (2) sources of material for study of child hygiene, (3) methods of isolation in contagious diseases, (4) diet for expectant and nursing mothers, and (5) prenatal material. Exhibits were lent eight times.

Breast feeding was stressed in talks on infant hygiene. Nurses were taught the technique of manual expression of breast milk. Pamphlets on breast feeding were distributed.

## Activities—Continued.

Public-health nurses received instruction in maternity and infancy work through summer institutes for nurses and institutes for nursing units.

Infants born in the State in calendar year 1925—85,492; infants and preschool children reached through the work of the bureau during the year under review—22,062; expectant mothers reached—4,527.

Counties in the State—58; counties having maternity and infancy work during the year—56; counties having maternity and infancy work since the acceptance of the maternity and infancy act—56; counties that have taken over the maternity and infancy work—10.

The outstanding achievements of the year were the drive for the examination of preschool children and the placing of nurses in two counties having the highest maternal and infant mortality.

## COLORADO

## Administrative agency:

State department of public instruction, child-welfare bureau, Denver.

## Staff:

Director (nonprofessional), 1 physician (part year), 4 nurses (2 part year), 1 clerk, 1 stenographer. Additional physicians, dentists, and dental hygienists were employed for special work as needed.

Volunteer assistants—112 physicians, 41 dentists, 6 nurses, 83 lay persons.

## Activities:

Child-health conferences conducted by physicians—108; children registered and examined—3,131. Defects found—9,160. Parents had defects corrected in 776 children.

Prenatal conferences conducted by physicians—11; prenatal cases registered—19; prenatal case examined—1.

Little mothers' classes—2; girls enrolled—62; number completing course—37.

Mothers' classes—10; mothers enrolled—102; number completing course—62; number still on roll—18; lessons in course—5 to 9.

Dental conferences conducted by dentists—60; children receiving advice—2,958.

New permanent combined prenatal and child-health center—1 established as a result of the maternity and infancy work. It was supported by the community.

New permanent child-health centers—4 established through the work of the bureau but supported by local funds.

Talks and lectures by staff—180.

Group demonstrations—50, relating to infant care, child care, and prenatal care.

Campaigns—2: (1) Goiter prevention by the use of iodized salt by the people in the goiter district. (2) Examination of preschool children in May to obtain correction of defects before they entered school.

Literature prepared—sunshine leaflets and directions for control of enuresis.

Literature distributed—18,550 pieces.

Graduate course in pediatrics—the pediatricians connected with the bureau are also instructors at the State medical school, and in cooperation with the extension division gave courses in pediatrics and obstetrics in two towns. They also gave courses at Colorado General Hospital.

Statistical studies—2: (1) Breast feeding; a study of supervised and unsupervised children in relation to numbers breast fed and duration of breast feeding. (2) Tabulation of defects found in the teeth of children examined at conferences and stations.

As the State is not in the birth-registration area the bureau is sending out copies of Reasons for Birth Registration and copies of birth records on request.

Breast feeding was stressed in conferences and classes and by distribution of literature.

Infants born in the State in calendar year 1925—19,411; infants reached through the work of the bureau during the year under review—8,141; preschool children reached—8,524; expectant mothers reached—355.

Counties in the State—63; counties having maternity and infancy work during the year—16; counties having maternity and infancy work since the acceptance of the maternity and infancy act—55; counties that have taken over the maternity and infancy work—11.

The outstanding achievement of the year was the educational work done through the child-health conferences.

#### DELAWARE

Administrative agency:

State board of health, division of child hygiene, Dover.

Staff:

Director (physician), 11 physicians (consultation service only), 10 nurses (part year).

Activities:

Child-health conferences conducted by physicians—220; infants and pre-school children registered and examined—3,776; visits to conferences—9,684. Defects found—924. Parents had defects corrected in 759 children.

Prenatal conferences conducted by physicians—52; prenatal cases registered and examined—330; visits to conferences—683.

Conferences conducted by nurses, no physician present—676; children inspected—5,912; mothers instructed in prenatal care—20; visits to conferences—17,776 (by expectant mothers, 50; by children, 17,726).

Little mothers' classes—4; girls enrolled and completing course—125; lessons in course—36.

Midwives' classes—22; midwives enrolled—217; number carried over from previous year (and also still on roll)—182; lessons in course—22. One of the staff nurses devoted her attention to the inspection of midwives. Midwives improved in attendance at classes and were obtaining the regulation midwives' bag.

Home visits by nurses—11,475 (prenatal cases seen, 363; postnatal cases, 250; infants, 2,696; preschool children, 5,113).

Talks and lectures by staff—23.

Nutrition instruction was given to 114 mothers.

Group demonstrations—41.

A toxin-antitoxin campaign was conducted in 7 districts, and 314 preschool children were immunized.

Literature prepared—Diarrhea and Enteritis, and diet cards.

Literature distributed—approximately 14,500 pieces.

New names registered for prenatal letters—6. (The letters were not ready for distribution before the close of the year.)

Exhibit—1, conducted by the staff at a fair.

Scientific articles prepared—12: Three on the Schick test and toxin-antitoxin work; 5 on diphtheria prevention; 1 on the eradication of diphtheria; 2 on infant mortality; 1 on infant feeding (for a county medical society).

Breast feeding was stressed at the itinerant conferences.

Plans were being made for training public-health nurses in maternity and infancy work through special conferences conducted by the staff physician.

Infants born in the State during the year—4,278; infants under 1 year of age reached through the work of the division during the year—3,184; preschool children reached—14,313; expectant mothers reached—713.

Counties in the State—3; counties having maternity and infancy work during the year—3; counties that have taken over the maternity and infancy work (in part)—3.

The outstanding achievements of the year were the conducting of the itinerant conferences and the immunization of the children against diphtheria.

#### FLORIDA

Administrative agency:

State board of health, bureau of child hygiene and public-health nursing, Jacksonville.

Staff:

Director (nurse), 7 nurses (2 part time), 1 file clerk (10 months), 2 stenographers (part time), 1 auditor (part time). Cooperation was given by 8 physicians from the bureau of communicable diseases who aided in conference work, and volunteer service by a number of local physicians.

## Activities:

Child-health conferences conducted by physicians—5; infants and preschool children registered and examined—476.

Conferences conducted by nurses, no physician present—254; children inspected—3,885.

Little mothers' class—1; girls enrolled and completing course—9.

Mothers' classes—371; mothers enrolled—1,868; lessons in course—6.

Midwives' classes—698; midwives enrolled—3,816; number carried over from previous year—3,109; number completing course—2,270; number still on roll—2,058. The plan of instruction included giving to the midwives the manual for study, following with three class periods and visits by nurse to the midwives, examination of them, and the granting of certificates.

Home visits by nurses—16,136 (to prenatal cases, 952; obstetrical cases, 636; postnatal cases, 940; infants, 3,632; preschool children, 6,315; hookworm cases, 3,624; tuberculosis cases, 37). The visits to hookworm and tuberculosis cases were also to expectant mothers and preschool children.

New permanent combined prenatal and child-health centers—4 established as a result of the work under the maternity and infancy program. Three centers were supported by municipal funds and one by the Naval Relief Service at Pensacola.

New permanent child-health centers—11 established (9 for white children, 2 for negro children). The educational work done by the bureau contributed to the development of these centers. They were supported by local funds.

Talks and lectures by staff—665, including 4 by radio.

Group demonstrations—526; attendance—4,122.

Campaigns—2; (1) May Day observance, a state-wide campaign for the observance of May Day by preparing the preschool child to enter school. (2) A hookworm campaign in connection with the work of the district nurses, covering the entire infected area of the State (this includes all but the Keys) and including the collection of 16,023 specimens. Laboratory examinations were made, and parents were advised to take the children to local physicians for treatment. Proper sanitary measures were being instituted by the State department of health to free the State of soil pollution.

Literature prepared—diet slips.

Literature distributed—15,470 pieces.

Exhibits conducted by the staff—8. Exhibit material was lent 10 times. Exhibits were made at 3 county fairs, at the State fair, at the annual meeting of the State Federation of Women's Clubs, and at a county federation camp.

Breast-feeding instruction was given through nurses' visits as well as mothers' meetings and neighborhood institutes.

Public-health nurses were trained in maternity and infancy work by an up-to-date circulating library of appropriate material and an annual nurses' conference.

Infants born in the State July 1, 1925, to April 1, 1926—23,171; infants under 1 year of age and preschool children reached through the maternity and infancy work during the year under review—approximately 10,000; expectant mothers reached—1,042.

Counties in the State—67; counties having maternity and infancy work during the year—67. No county has taken over the work entirely, but 28 counties were doing some maternity and infancy work as a result of the educational activities of the bureau.

Two staff nurses worked in tourist camps giving instruction in maternal and infant hygiene exclusively.

The outstanding achievements of the year were the control of midwifery, education and supervisory work in tourist camps, and education of the general public to the needs of mothers and children.



## GEORGIA

Administrative agency:

State board of health, division of child hygiene, Atlanta.

Staff:

Director (physician), 2 physicians (1 part time, 1 one month), 5 nurses (2 part year), 1 vital-statistics clerk (1½ months), 1 stenographer, 1 chauffeur (for healthmobile, two-thirds of a month), 1 laboratory assistant (part time). Fifteen county nurses were paid for some maternity and infancy work.

Activities:

Child-health conferences conducted by physicians—265; infants and preschool children examined—8,529.

Prenatal conferences—227; prenatal cases registered—3,953; prenatal cases examined—3,953. Some examinations were complete, others were partial.

Little mothers' classes—231; girls enrolled—4,494; lessons in course—12.

Mothers' classes—28; mothers enrolled—432; lessons in course—5.

Midwives' classes—159; midwives completing course—1,533; lessons in course—8. Permanent midwives' clubs were organized following the course, meetings being held once a month.

Home visits—37,511 (prenatal cases seen, 6,421; obstetrical cases, 881; postnatal cases, 8,216; infants, 12,478; preschool children, 5,518).

New child-health center—1; new prenatal center—1. Both were established as a result of the maternity and infancy work. Both were supported by county funds.

Talks and lectures by staff—341, including 2 by radio.

Community demonstrations—41, given in connection with the healthmobile, covering prenatal, natal, and preschool-child care. The healthmobile visited 8 counties in which a regular program of maternity and infancy was put on, including talks and conferences with expectant mothers and examination of children under 7 years of age. Motion pictures were shown covering defects, sanitation, proper food, and other health subjects. The importance of little mothers' leagues was stressed. One truck has been worn out in the work, and the money for a new truck and half the upkeep was given by a sorority in Wesleyan College, Macon, Ga.

Group demonstrations—2,870, relating to home nursing, preparation of food, infant care, and preparation for maternity. They were held mainly in churches, schools, and community houses.

A localized survey was made of negro midwives in 22 counties, an effort being made to locate and register all the midwives. There are in the State about 4,000 midwives, many of whom are in isolated sections.

A child health day campaign was conducted.

Literature prepared—Georgia Baby Book and newspaper plate matter. About 100 newspapers receive the plate matter, and 90 per cent of it is used.

Literature distributed—20,093 pieces (3,838 prenatal, 15,786 preschool, and 469 miscellaneous).

May Day activities were participated in by local organizations, and much educational work on the importance of supervision of the well child was given by local agencies.

The State was not in the birth-registration area because its law had been declared unconstitutional, but an amendment to the State constitution that put the registration law on a working basis was ratified by the legislature (see p. 20).

Special training in maternity and infancy work for public-health nurses was supplied through a conference lasting several days, which is an annual affair. Infants under 1 year of age and preschool children reached by the work of the division—26,525; expectant mothers reached—14,782.

Counties in the State—161; counties having maternity and infancy work during the year—97; counties having maternity and infancy work since the acceptance of the maternity and infancy act—121. This includes actual work of nurses and healthmobile but not lectures.

Silver nitrate (20.056 ampoules) was distributed to physicians and midwives for use in preventing blindness of infants.

The outstanding achievement of the year was the instruction of 1,533 midwives.

## HAWAII

## Administrative agency:

Territorial board of health, division of maternity and infancy, Honolulu.

## Staff:

Director (physician), 4 nurses (part year), 1 stenographer, 14 district board of health nurses (part time).

Volunteer assistants—18 physicians, 2 nurses, 33 lay persons (including clerks, interpreters, and hospital attendants).

## Activities:

Combined prenatal and child-health conferences conducted by physicians in the health centers—736; infants and preschool children registered and examined—3,633; visits to conferences by infants and preschool children—10,986. A few expectant mothers attended and were examined.

Home visits by nurses—4,542, to children who attended the health centers.

New permanent combined prenatal and child-health centers—56. Three were in Hilo and 53 in villages and plantation camps. Fifty-three were organized under the work of the maternity and infancy act. One had been previously a weighing station conducted by nurses under the board of health, two had been plantation centers and were reorganized. Thirty-five centers were being conducted by the division, 21 by the plantations with the assistance of the division.

Survey—1 of midwives (not completed).

Legislature prepared—record and report forms, Baby Weight Book, Preschool Child's Health Book, a series of 25 articles for a Hawaiian weekly. Literature distributed—approximately 6,600 pieces.

Talks and lectures by staff—18. The director gave four lectures in a six-week public-health course for nurses in the University of Hawaii.

Exhibit material prepared—photographic posters to teach infant care, illustrated by babies of different races—Portuguese, Filipino, Japanese, Korean, and Hawaiian.

The Territory is not in the United States birth-registration area, but nurses urged registration of all babies they found in the course of their work. Twenty-two per cent of all the babies born outside of Honolulu were under supervision.

Breast feeding was stressed at the centers.

Infants born in the Territory during the year—12,417; infants under 1 year of age reached by the work of the division—1,751; preschool children reached—1,882.

Counties in the Territory—5; counties having maternity and infancy work during the year—4. Work is not allowed in the county containing the leper settlement.

The outstanding achievement of the year was securing the interest and the cooperation of local physicians for the program.

## IDAHO

## Administrative agency:

State department of public welfare, bureau of child hygiene, Boise.

## Staff:

Director (physician), 3 physicians (part time), 2 nurses, 1 stenographer and bookkeeper.

Volunteer assistants—32 physicians, 36 nurses, 157 lay persons.

## Activities:

Combined prenatal and child-health conferences conducted by physicians—32; prenatal cases registered and examined—24; infants and preschool children registered and examined—1,522; visits to conferences—1,546.

Home visits by nurses—705, to homes which were represented by visitors to the conferences.

Talks and lectures by staff—7; attendance—1,104.

Campaigns—2: (1) For state-wide birth registration. The distribution of registration blanks to physicians, midwives, and others who neglected or refused to send in reports of births was part of the work of the field nurses. (The State was not in the birth-registration area.<sup>7</sup>) (2) Promotion of breast feeding.

<sup>7</sup> Idaho was admitted to the birth and death registration areas in the autumn of 1926.

## Activities—Continued.

Literature distributed—7,839 pieces (diets, 5,938; constipation sheet, 381; Idaho publication, 164; Child Management, 260; Preschool Child, 290; Enuresis, 197; Infant Care, 329).

New names registered for prenatal letters—300; prenatal letters distributed—300 sets.

Exhibit material prepared—posters to show at conferences.

Nutrition tables were prepared showing calories in various articles of food. The midwife situation has improved. In 1924 there were 84 midwives practicing; in 1925 only 64 reported births.

Statistical studies were made of births and deaths of children and of puerperal death rates.

Breast feeding was urged through advice at clinics and that given in the follow-up work.

Infants born in the State during the year—9,789; infants and preschool children reached through the work of the bureau—3,134; expectant mothers reached—324.

Counties in the State—44; counties having maternity and infancy work during the year—17; counties having maternity and infancy work since the acceptance of the maternity and infancy act—44.

The outstanding feature of the State's program for the year was the prenatal and child-health conferences. These were largely in rural communities where medical attention and advice were not easily available.

## INDIANA

## Administrative agency:

State board of health, division of infant and child hygiene, Indianapolis.

## Staff:

Director (physician), 3 physicians (1 part year), 3 nurses, 1 vital-statistics clerk, 4 stenographers, 1 exhibit director (part year). Nine temporary assistants were employed for periods of a few days to two and one-half months.

## Activities:

Child-health conferences conducted by physicians—178; infants registered and examined—4,430; visits to conferences—4,522. Defects found—11,949. Parents had approximately 60 per cent of the defects corrected.

Classes in maternal and infant care—in 18 colleges; number enrolled—3,189. The course consisted of three lectures and two demonstrations. The percentage of attendance, based on the enrollment, was 74.45.

Mothers' classes—296; mothers enrolled—11,015; number carried over from previous year—1,142; number completing course—10,106; number still on roll—909; lessons in course—5. The course was conducted by three units, each consisting of a physician and a nurse. Two counties are organized for alternate visits of the physician, who gives the initial lecture the first week in each county, followed the next week by the nurse's demonstration. The physician's third lecture is illustrated with films. Ten to fourteen classes are organized in each county. Since the inception of the plan classes have been held in 67 of the 92 counties in the State.

Dental conferences conducted by dentists—5; preschool children receiving dental care—142. This work was in connection with the child-health week at Winona Lake.

Talks and lectures by staff—1,025.

Community demonstrations—2. One was at Winona Lake Chautauqua Child-Health Week, covering all phases of child care through demonstrations, exhibits, films, and lectures. The second was the annual demonstration at the State fair, lasting through the entire fair. Reexamination was made of 111 babies who had been examined the year before. Prizes were awarded by the State board of agriculture and an Indianapolis newspaper to the baby scoring highest among the 885 babies examined in the contest. (This number is included in total examinations reported above.)

Group demonstrations—655, relating to infant care and maternal care, given in connection with the mothers' classes and the college classes in infant care.



## Activities—Continued.

Campaigns—2: (1) Annual May Day observance, participated in by 51 counties. (2) A campaign for child-health clubs. The qualifications for membership in the child-health club included a careful examination of the child by a physician and the promise of the parents to follow the advice as closely as possible and to have the examination repeated at least once each year.

Surveys—3: (1) A questionnaire to physicians on obstetrical procedure and suggestions to be incorporated in mothers' classes. (2) Findings in field activities, which included a study of histories taken at conferences. (3) Benefits from the conferences. The result showed 594 reports from physicians, nurses, mothers, and chairmen with the following benefits: Teeth cared for, 123; tonsils and adenoids removed, 113; improved diet, 100; improved habits, 23; orthopedic care, 16; prenatal care, 71; care of eyes and general care, 305.

Literature prepared—revision of *The Elusive Vitamin*, reprint of *Children's Teeth*.

Literature distributed—145,243 pieces.

Exhibits conducted by staff—40. New exhibit material prepared—charts, posters, and other material. Exhibits were lent 38 times. These were shown before both scientific and lay groups, adults and children, negro and white groups, and reached people of many types and classes.

Scientific articles prepared—15.

Statistical studies made—3: (1) Maternal care based on 3,924 histories. (2) Nutrition studies based on records of 2,205 children. (3) Infections and other disorders of children based on records of 3,831 children.

Nutrition of the expectant mother, the infant, and the preschool child has been taught to all mothers' classes.

Supervision of the work of local organizations was given on request. A number of county and city nurses requested and received suggestions for their maternity and infant-hygiene work.

Midwives have been decreasing in numbers as a result of the standards set for their licensing.

Local agencies conducted child-health centers in some of the cities, with resulting lower maternal and infant mortality rates.

Some county nurses not receiving maternity and infancy funds assisted the child-hygiene division and devoted part of their time to maternity and infancy work.

Special attention was given to promoting breast feeding, and manual expression of breast milk was taught in the mothers' classes.

Public-health nurses received some training in maternity and infancy work through the assistance they gave to the field units of the child-hygiene division.

Infants born in the State during the year—62,948; infants and preschool children reached by the work of the division—4,430.

Counties in the State—92; counties having maternity and infancy work during the year—86; counties having maternity and infancy work since the acceptance of the maternity and infancy act—92.

The outstanding feature of the year's work was teaching maternity and infancy standards in rural districts of 32 counties, in 18 colleges, in 5 hospitals, and to 1 organized group of young women.

## IOWA

## Administrative agency:

State University of Iowa, division of maternity and infant hygiene, Iowa City.

## Staff:

Director (nonprofessional), 4 physicians (1 part year), 6 nurses, 1 dentist, 1 dental hygienist, 1 vital-statistics clerk, 3 stenographers.

## Activities:

Combined prenatal and child-health conferences conducted by physicians—162; prenatal cases registered and instructed—648; infants and preschool children registered and examined—3,207.

Child-health conferences conducted by physicians—150; infants and preschool children registered and examined—2,811.



## Activities—Continued.

Defects found—3,031. Parents usually had defects corrected. From 40 to 72 per cent of corrections were reported at various centers.

Prenatal conferences conducted by physicians—77; attendance—2,926; prenatal cases advised—587.

Dental conferences conducted by dentists—137; preschool children receiving dental advice—2,178.

Literature prepared—Baby Book.

Literature distributed during the year—approximately 160,000 pieces.

Infants born in the State during the year—47,760; infants under 1 year of age reached through the work of the division—1,934; preschool children reached—4,084; expectant mothers reached—865.

Counties in the State—99; counties having maternity and infancy work during the year—53; counties having maternity and infancy work since the acceptance of the maternity and infancy act—98.

The most gratifying development of the work was the increasing cooperation of county medical societies in the work of the conferences. This has been very noticeable since infant work and maternity work have been developed as separate units.

## KENTUCKY

## Administrative agency:

State board of health, bureau of maternal and child health, Louisville.

## Staff:

Director (physician), 3 physicians (1 part time, all part year), 11 nurses (1 part time, all part year), 2 nutrition workers (part year), 1 vital-statistics clerk (part year), 5 clerks (part year), 1 stenographer (part year), 1 inspector of birth registration (part year), 3 educational instructors (1 part time, all part year). Eight county nurses were paid for some maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—498; infants and preschool children registered and examined—10,265.

Prenatal conferences conducted by physicians—102; prenatal cases registered and examined—862; visits to conferences—3,210.

Mothers' classes—40; mothers enrolled—400; number completing course—380; lessons in course—3.

Midwives' classes—46; midwives enrolled—221; number completing course—221; lessons in course—2. Improvement in the midwife situation has been shown by improved reports. The number of midwives is not increasing, and it is believed that they are becoming fewer.

New permanent child-health centers—15 established as a result of the State maternity and infancy work. They were supported by both maternity and infancy funds and local funds.

Infant homes inspected—10; number of inspections—10.

Talks and lectures by staff—526, including 1 by radio.

Literature prepared—The Human Machine, nutrition bulletin, Keep the Well Baby Well, Rickets, Sun Baths, Diet for the Child under One Year, Midwife Instructions.

Literature distributed—57,707 pieces.

New names registered for prenatal letters—1,500; prenatal letters distributed—2,500 sets. (Prenatal letters were sent to physicians and medical students as well as to mothers.)

Graduate courses for physicians in obstetrics were given twice; once in connection with negro-health week and once during the alumni week at Kentucky Medical College.

Exhibits conducted by staff—290. These included exhibits at State fairs, county fairs, State medical association, American Hospital Association, and American Dental Association meetings. New exhibit material prepared—posters, charts, maps, and food exhibits. Exhibit material was lent 20 times.

Scientific articles prepared—2.

Nutrition work was conducted through lectures to women in the normal school covering the subjects of nutrition and of feeding expectant and nursing mothers, infants, and preschool children. Two nursery health schools were conducted for 8 weeks, the enrollment being 60 children 4½ to 6 years of age. They were supervised in their rest and feeding.

## Activities—Continued.

Lectures on nutrition were given to women's groups; 229 high-school girls were instructed in child feeding in 30 different communities. This was in cooperation with the Smith-Hughes home-economics department of the State, whose nutrition program was outlined and supervised by the maternity and infancy nutritionist. Much nutrition literature was distributed.

County nurses instructed 5,000 expectant mothers in prenatal care. These included nurses receiving maternity and infancy funds and State funds and those paid by private funds.

Public-health nurses were trained in maternity and infancy work by a three-month field course with the staff nurses in order to qualify for county nursing positions.

Infants born in the State during the year—57,197; infants under 1 year of age reached through the work of the bureau—23,169; preschool children—6,110; expectant mothers reached—5,862. Infants were reached also through literature sent with birth certificates to mothers.

Counties in the State—120; counties having maternity and infancy work during the year—80; counties having maternity and infancy work since the acceptance of the maternity and infancy act—120; counties that have taken over the maternity and infancy work—21. These counties carry on the permanent child-health centers established by the bureau. Eight counties were conducting centers organized by the bureau that have never had any except local financial support.

The year's program was a steady development of work started in former years.

## LOUISIANA

## Administrative agency:

State board of health, bureau of child hygiene, New Orleans.

## Staff:

Director (nonprofessional), 5 physicians (1 part time, consultant; 4 part year), 6 nurses (2 part year), 2 dentists (1 part year), 1 clerk (part time), 1 stenographer. In addition, 3 physicians served as temporary assistants at conferences, and 4 parish<sup>8</sup> nurses were paid for some maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—299; infants and pre-school children registered and examined—8,900. Defects found—31,411. Parents had defects corrected in 987 children.

Expectant mothers were invited to all conferences, including conferences for midwives. There were 606 prenatal cases registered. No examinations were made by staff physicians but on special requests directors of health units made examinations.

Little mothers' classes—5; girls enrolled—213; lessons in course—12. This work was just being started.

Mothers' classes—3; mothers enrolled—70; lessons in course—12. This work was just being started.

Midwives' classes—58; midwives enrolled—1,137; number carried over from previous year—586; number still on roll—1,672; number completing course—51; lessons in course—6. There were 193 demonstrations to groups of midwives on preparations for delivery, technique of delivery, care of infants, and other prenatal and natal care.

The midwife situation improved in the following particulars: More complete registration of births, regular attendance at classes, more interest shown in class work, better equipment, use of nitrate of silver solution.

Dental conferences conducted by dentists—131; children receiving advice—17,598.

Home visits—431 (to prenatal cases, 335; obstetrical case, 1; infants, 33; preschool children, 62).

New permanent child-health centers—2 established as an indirect result of the maternity and infancy work. They were supported by women's clubs and local funds.

<sup>8</sup> In Louisiana the parish is the civil division corresponding to the county in other States.

## Activities—Continued.

Infant home inspected—1; number of inspections—1.

Talks and lectures by staff members—625, including 1 by radio.

Community demonstrations—5, in 5 parishes. These were demonstrations of preschool conferences (preparing the child to enter school).

A campaign was conducted for birth registration and the locating of midwives. A nurse from the bureau accompanied a field worker lent by the American Child Health Association and 15 parishes were visited. The registration of births improved as a result of this work.

Surveys—4: (1) Of midwives, in connection with the campaign for birth registration. (2) Of birth registration, through questionnaires sent to all schools in the State requesting pupils to fill in the names of babies born during the years 1924 and 1925 (more than one-half of the names sent had not been registered). (3) A goiter survey of preschool children in four parishes. The findings showed varying degrees of thyroid enlargement in more than one-half of the children examined. One parish had an artesian-water supply, the others used cistern water. (4) A hookworm survey of preschool children was made in 15 communities of one parish; two nurses assisted in the survey, which was made by the State department assistant bacteriologist in the laboratory car. Specimens were secured and examined in the car, and reports were made without delay; 782 specimens were examined. A general clean-up and repairing of wells and toilets took place, and one community alone reported 33 eradication.

Literature prepared—Baby Book, Questions for Midwives, Diet Lists.

Literature distributed—28,081 pieces.

New names registered for prenatal letters—757; prenatal letters distributed—757 sets.

Exhibits conducted by staff—8; exhibit material prepared—maps, charts, posters, maps of death and birth rates. Exhibits were lent 56 times.

Statistical studies—2; infant and maternal death rates by parishes; activities of the bureau.

A class in nutrition was conducted in one parish.

Supervision by State staff is given in two parishes only.

Local agencies established two health centers and assisted in securing examinations of children of preschool age before they entered school.

Parish nurses not paid by maternity and infancy funds included among their activities work with infants, preschool children, expectant mothers, and midwives, as well as the communicable-disease work with children.

Other activities have been milk campaigns, May Day and child health day program.

The State is not in the birth-registration area. Efforts were made to place it there through campaigns, interviews with physicians and midwives, and intensive work with registrars.

Breast feeding was emphasized in all talks with individual mothers and to groups, also in the instruction given to midwives.

The training for public-health nurses in maternity and infancy work included attendance at clinics in New Orleans and special field work.

Infants born in the State July 1, 1925, to May 1, 1926—37,207; infants under 1 year of age reached through the work of the bureau during the year under review—536; preschool children reached—8,364; expectant mothers reached—1,057.

Parishes in the State—64; parishes having maternity and infancy work during the year—45; parishes having the maternity and infancy work since the acceptance of the maternity and infancy act—60.

The outstanding achievement of the year was the work with the midwives, and the continuation in one parish of all phases of the work which had been begun in the previous year.

## MARYLAND

Administrative agency:

State department of health, bureau of child hygiene, Baltimore.

Staff:

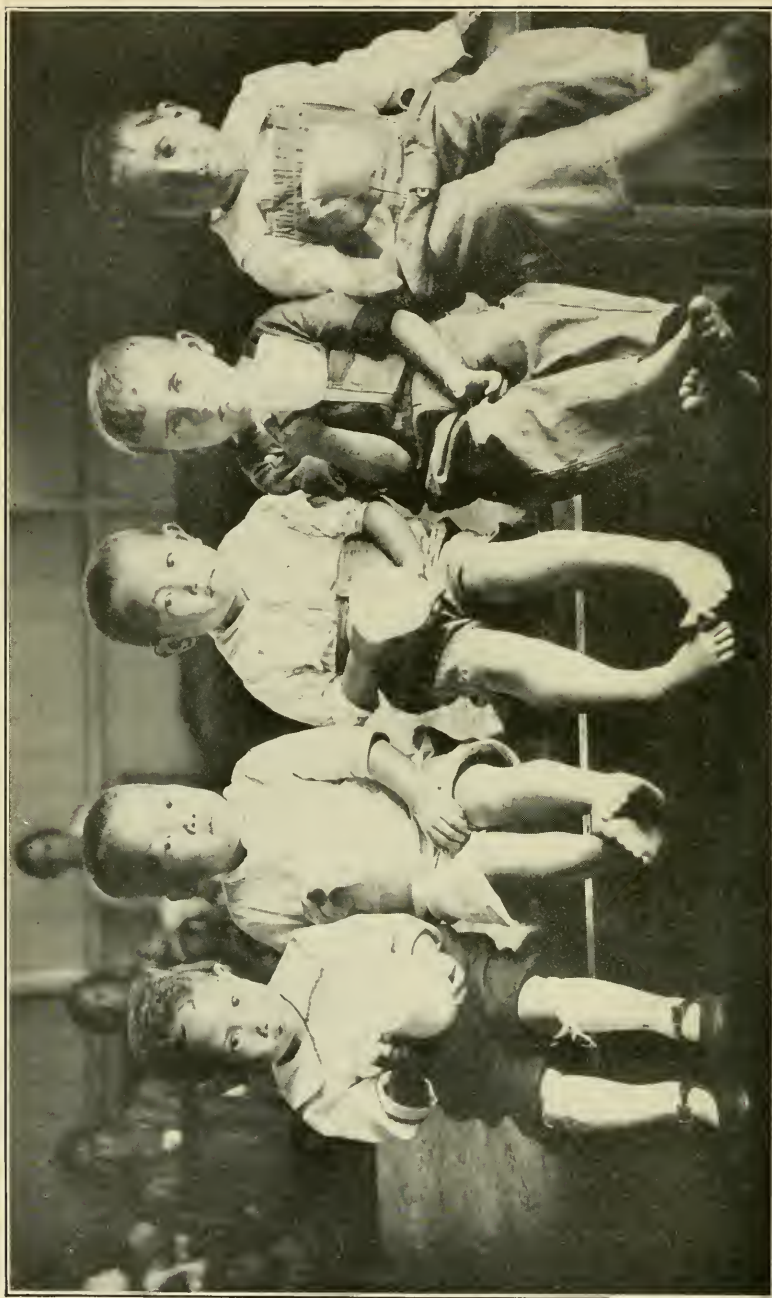
Director (physician), 1 physician (part year), 4 nurses (part time), 1 health-education worker (part time), 1 clerk, 2 stenographers, 1 chauffeur (part year). The physician and nurses devoted their attention to the





LITTLE MOTHERS' CLASSES—A GROUP OF HIGH-SCHOOL GIRLS RECEIVING INSTRUCTION IN INFANT CARE





CHILDREN OF MANY RACES IN HAWAII TAUGHT AT CONFERENCES TO DRINK MILK

## Staff—Continued.

work with midwives. Six dentists and 36 physicians were paid by the day for their services. Seventeen county nurses were paid for some maternity and infancy work.

Volunteer assistants—5 physicians, 3 dentists, 60 lay persons.

## Activities:

Child-health conferences conducted by physicians—378; infants and pre-school children examined—5,603; visits to conferences—6,103. Defects found—7,630. Parents had defects corrected in 519 children.

Prenatal conference—1; prenatal cases registered and examined—10.

Conferences conducted by nurses, no physician present—41; children inspected—476; mothers instructed in prenatal care—372.

Little mothers' classes—12; girls enrolled—193; lessons in course—6.

Mothers' classes—55; mothers enrolled—778.

Midwives' classes—11; midwives enrolled—163; number completing course—144; lessons in course—8; midwives visited by nurses—196. The midwife situation improved as a result of the instruction given and the effort to prevent unlicensed midwives from practicing. A feature of the course was the insistence placed on the cooperation of midwives with physicians.

Dental conferences conducted by dentists—26; preschool children receiving dental advice—264.

Home visits by nurses—1,892 (to prenatal cases, 376; obstetrical cases, 29; postnatal cases, 189; infants, 743; preschool children, 583).

New permanent child-health center—1 established as a result of the work under the maternity and infancy act. It was supported by local funds.

Talks and lectures by staff—146, including 3 by radio.

Group demonstrations—129 (many in connection with the healthmobile), in relation to infant care. They reached approximately 2,989 people in 10 counties.

A survey of preschool children who would attend school in the fall was made with the assistance of the board of education. Physical examinations were planned for the summer months, the defects found to be referred to the family physicians for correction.

Literature prepared—Home Making in Maryland, Midsummer Care of the Baby, May Day Pamphlet, Suggestions to Maryland's Future Mothers, Revised Diet Cards, Midwinter Care of the Baby.

Literature distributed—83,000 pieces. This included distribution of the pamphlet, Home Making in Maryland, to all couples three months after their marriage licenses had been issued.

Graduate course—six lectures on obstetrics, given to physicians in three counties.

Exhibits prepared—May Day poster, exhibit for preschool-child work consisting of dolls representing 4-year-old children, new films bought. Exhibits were lent 27 times.

Nutrition classes were conducted in several of the counties.

Local agencies in several counties not financed by maternity and infancy funds have undertaken child-health activities at the suggestion of the bureau.

At the request of the bureau the State department of health opened its laboratories for urinalyses for expectant mothers, containers being supplied by the bureau to midwives and physicians. Reports on the specimens sent by midwives were sent to the deputy State health officers. If the reports showed an abnormal condition, the deputy requested the nurses to advise the patients to employ a physician.

Infants born in the State during the year—35,336; infants under 1 year of age reached through the work of the bureau—1,235; preschool children reached—4,368; expectant mothers reached—4,615.

All counties in the State were reached by maternity and infancy work during the year.

A committee of the medical and chirurgical faculty of the University of Maryland was formed to devise a plan whereby the support of the medical practitioners of the State might be secured for periodic medical examinations. A similar committee was appointed by the president of the State dental society to further oral hygiene.

The outstanding features of the year's work were obstetrical lectures, midwives' courses, preschool children's examinations, urinalyses for expectant mothers, and distribution of the pamphlet, *Home Making in Maryland*.

## MICHIGAN

## Administrative agency:

State department of health, bureau of child hygiene and public-health nursing, Lansing.

## Staff:

Director (physician), assistant director (nurse), 2 physicians, 10 nurses, 1 nutrition worker (part year), 1 midwife inspector (nurse), 2 vital-statistics clerks, 2 stenographers, 1 organizer, 1 director of mailing room (part time).

## Activities:

Child-health conferences—173, in 18 counties; infants and preschool children examined—3,469. Defects found—8,507. The State pediatrician's entire time was given to holding these itinerant conferences.

Prenatal conferences—78; prenatal cases registered—103; prenatal cases examined—41. Examination included Wassermann test, blood pressure, urinalysis, pelvimetry, and complete physical examination. All conferences were itinerant.

Little mothers' classes—307 organized by State nursing staff; girls enrolled and completing course—6,414; lessons in course—8.

Mothers' classes—8; mothers enrolled—67; lessons in course—8. These were conducted by the staff nurses.

Women's classes (mothers and midwives)—73; midwives enrolled, 22; mothers enrolled, 893; lessons in course—8. This course was conducted by a unit consisting of a physician and a nurse, the physician teaching maternal, infant, and child care, the nurse giving individual and group demonstration. The physician illustrated her talk with lantern slides and held a prenatal conference at the close of the series of classes. Seventy-five group demonstrations were given to an attendance of 793 women; and 94 demonstrations were given to individual midwives.

Home visits by nurses—7,252 (to prenatal cases, 1,286; postnatal cases, 46; infants and preschool children, 5,920).

New permanent combined prenatal and child-health centers—9 established, all supported by local funds. Seven were organized as a result of work of the State staff under the maternity and infancy act. Two were organized without the aid of staff workers but sent reports to the bureau.

Talks and lectures—215, including 3 by radio; attendance—9,773.

A community demonstration consisting of an intensive prenatal program was made in one county in which the maternal mortality in 1921–1924 had been 9.4 for every 1,000 live births. A nurse was placed in the county in January, 1926, to cooperate with the physicians and the women in seeing that every pregnant woman in the county had prenatal care. She interviewed every physician and followed his instructions in giving care to his patients. To the end of the fiscal year she had visited 124 new prenatal cases, making 339 visits, and also had visited 194 infants and 32 preschool children, as well as making additional visits relating to the work. The program was designed to raise the standard of prenatal care in the county.

Campaign—1, in 10 counties, on breast feeding. Figures were not available for 3 of the counties. In the 7 counties tabulated the mothers of 1,329 babies were visited. It was found that 93 of these babies had never been breast fed. Of the total number, 938 babies (70 per cent) were under 6 months of age; of these, 754 were still breast fed, 127 were weaned, and 57 had never been breast fed. The purpose of the campaign was to educate mothers to feed their babies at the breast.

Supervision of midwives—in April, 1926, the inspector of midwives began regular inspection of midwives, her duties being to visit the midwives in their homes, inspect their homes and equipment, and investigate their moral character and standing in the neighborhood. Twenty-three counties had been visited by the end of the fiscal year, 190 visits having been made. Demonstrations of preparation for delivery and of the general aftercare of mother and baby were given in connection with the visits.



## Activities—Continued.

This work was undertaken in order to make as effective as possible the action of the State department of health, which adopted in August, 1925, a set of "Regulations governing midwives." Copies of these regulations were sent to all midwives in the State (outside Detroit, which has its own regulations) who had reported births in 1923, 1924, and 1925. Although the regulations were not sent out until in March, 1926, the response of the midwives in the attitude shown and the attempt made by them to comply with the regulations was very satisfactory. Since they have been notified that they would be subject to inspection by a representative from the State department of health a number have signified their intention of giving up the work. It is hoped that the new measures will result in the elimination of unfit midwives and the raising of standards among those who continue to practice.

Literature prepared—Regulations Governing Midwives, pamphlet on enuresis, Michigan Mothers' Manual.

Literature distributed—246,847 pieces (on prenatal care, 19,916; on infant and preschool care, 215,582; prenatal standards, to physicians, 5,134; Michigan Mothers' Manual, 4,365; Regulations Governing Midwives, to midwives, 1,850).

New names registered for prenatal letters—2,249; prenatal letters distributed—24,799.

Exhibits conducted by staff—257; exhibits lent—30; exhibits prepared—charts, maps, and special device to show infant mortality, contagious diseases, and diseases of infancy.

Scientific articles published—3.

Local agencies promoted maternity and infancy work.

There were 77 active prenatal and child-health centers in the State, outside of Grand Rapids and Detroit, supported by local funds. Thirty-one centers existed before the enactment of the maternity and infancy act. Seventy had been organized since by the staff and as a result of impetus due to maternity and infancy work. During the year the 77 centers held 2,686 conferences, at which 26,552 infants and preschool children were examined and 1,921 expectant mothers were examined or advised. There were 36,772 home visits made from centers. County nurses to the number of 52, who were not paid by maternity and infancy funds, made 803 visits to the babies, 469 to preschool children, 280 to maternity cases, and 11 to teach breast expression. In addition they made 29,281 instructive visits to infants, preschool children, and expectant mothers. They arranged 25 prenatal conferences, with an attendance of 412. They arranged 236 infant and preschool conferences, with an attendance of 2,700. They held 5 nutrition clinics, with an attendance of 29. They conducted 46 little mothers' classes, with an enrollment of 657, and 31 mothers' classes with an enrollment of 221.

Immunizations of preschool children against diphtheria—4,141; preschool children given Schick test—860.

Infants born in the State during the year—97,606; infants under 1 year reached through literature on care of the baby—97,606; additional contact with infants through staff—8,555; preschool children reached—8,834; expectant mothers reached—5,559. Infants and preschool children reached by indirect contact through centers—26,552; expectant mothers reached by indirect contact through centers—1,921.

Counties in the State—83; counties having maternity and infancy work during the year—44; counties having maternity and infancy work since the acceptance of the maternity and infancy act—83; counties that have taken over the maternity and infancy work—3.

The outstanding achievement of the year was the establishment of a definite program in regard to midwives.

## MINNESOTA

Administrative agency:

State department of health, division of child hygiene, Minneapolis.

Staff:

Director (physician), 1 physician, 9 nurses (1 part time, 2 for 3 months), 2 vital-statistics clerks, 4 clerks (3 part time), 3 stenographers. Seven county nurses were paid for some maternity and infancy work.



## Activities:

Child-health conferences for Indian children, conducted by physicians—11; infants and preschool children registered and examined—173.

Prenatal conferences conducted by physician—14; prenatal cases registered and examined—104.

Little mothers' classes—62; girls enrolled—1,001; number completing course—924. These classes were conducted by county and school nurses, and the division of child hygiene issued the certificates.

Mothers' classes—8; mothers enrolled—126; number completing course—126; lessons in course—6.

Home visits—1,444 made by Indian nurses (prenatal cases seen, 103; obstetrical cases, 59; postnatal cases, 134; infants, 541; preschool children, 364).

Talks and lectures by staff—165, including 2 by radio.

Group demonstrations—191, before farm-bureau clubs, women's clubs, and other women's organizations, on the fundamentals of prenatal and infant care and feeding, the lesson lasting two to four hours.

A breast-feeding survey was continued in two counties in which it had been conducted in the preceding year. To a card encouraging breast feeding, which was sent to mothers, was attached a questionnaire to be returned to the division's office. This requested information about duration of breast feeding and the supplementary food given. Cards and questionnaires were sent to the mother when the baby was 3 months old, 6 months old, and 9 months old. In this way 500 mothers were reached. The data have not yet been tabulated.

Literature prepared—Mothercraft Manual revised.

Literature distributed—92,458 pieces.

New names registered for prenatal letters—1,507; prenatal letters distributed—2,066 sets.

Correspondence course for mothers—1,266 mothers registered; number carried over from previous year—1,053; number completing course—319; number still on roll—519; lessons in course—15.

Exhibits conducted by staff—191. Exhibit material was lent 40 times.

Scientific articles prepared—4.

Other activities—the maternity and infancy work with the Chippewa Indians has been continued. Two Indian nurses have been employed. Their work consisted of home visiting and demonstrations, conducting classes in prenatal and infant hygiene for mothers, and mothercraft classes for girls.

Assistance in maternity and infancy programs was given by county nurses, including those not paid by maternity and infancy funds. Seventy per cent of the time devoted to this work was spent in visits to infants and preschool children and 27 per cent in maternal visits.

Public-health nurses were trained in maternity and infancy work by regional conferences and institutes. Four regional conferences for public-health nurses were held. In the year under review the work with preschool children was emphasized. The director of the division is on the faculty of the department of preventive medicine and public health of the State university. A 24-hour course is given twice a year for public-health nurses who are taking the public health nursing course at the State university. One or two lectures on the subject are also given to the senior medical students.

Infants born in the State during the year—52,237; infants under 1 year of age and preschool children reached by the work of the division—approximately 25,000; expectant mothers reached—2,195.

Counties in the State—87; counties having maternity and infancy work during the year—78; counties having maternity and infancy work since the acceptance of the maternity and infancy act—87; counties that have taken over the maternity and infancy work—2.

The outstanding achievement of the year was the conducting of mothers' classes by the staff nurses.

## MISSISSIPPI

## Administrative agency:

State board of health, bureau of child hygiene and public-health nursing, Jackson.

## Staff:

Acting director (physician, part time), 2 physicians (part time, 1 part year), 4 nurses (2 part year, 1 of these part time), midwife supervisor (nurse, part time), 2 dental hygienists (part time, 1 part year), 1 vital-statistics clerk (part year), 1 vital-statistics field worker (part time, part year), 1 clerk (part year), 1 laboratory technician, 2 stenographers (1 part time), 1 purchasing agent and accountant (part time). Twelve county nurses were paid for some maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—429; infants and preschool children registered and examined—4,481; visits to conferences—4,481. Defects found—6,083, in 3,017 children. Parents had defects corrected in approximately 2,000 children.

Mothers' classes—20, in hygiene; women and girls enrolled—428; number carried over from previous year—80; number completing course and receiving certificates—328; number still on roll—80. The course covered 12 to 18 hours.

Midwives' classes—101; midwives enrolled—1,350; number completing course—1,320; lessons in course—8. After the classes midwives' clubs were organized. County meetings of midwives were held once a month with the county nurse. She inspected the bags at that time, thus keeping a careful check on all who had taken the class work or were licensed. During the year there were 985 meetings of midwives' clubs; attendance—7,434. The midwife situation has improved as a result of the instruction and type of supervision. Equipment, cleanliness, reporting of births have all improved. Midwives showing positive Wassermann reactions were treated. Physicians called in consultation in midwife cases frequently complimented them on their procedure.

Dental conferences conducted by dentists—19; prospective mothers receiving dental advice—821; preschool children receiving dental advice—5,000.

Home visits by nurses—5,308 (to prenatal cases, 813; obstetrical cases, 174; infants 1,947; preschool children, 2,374).

Talks and lectures by staff—542.

Literature prepared—Tonsils and Adenoids, Save the Baby, Hygiene Outline.

Literature distributed—103,926 pieces.

Motion pictures were shown by the staff 500 times.

Scientific articles prepared—126, including papers read by physicians and nurses before professional and lay groups.

Breast feeding was promoted through instruction of individuals by county health officers, staff nurses, and public-health nurses. Public-health nurses were trained in maternity and infancy work through the placing of new nurses with experienced field nurses or with the headquarters staff for a time before they were assigned to county positions.

Infants born in the State in calendar year 1925—45,563 (white, 22,265; negro, 23,298); infants under 1 year of age reached by the work of the bureau during the year under review—40,000; preschool children reached—6,855; expectant mothers reached—3,999. Infants were reached by means of literature sent with birth-registration certificates. The State is in the birth-registration area, but field workers continue to urge the reporting of births.

All the 82 counties in the State had maternity and infancy work during the year. Three counties have taken over the work begun under the maternity and infancy act.

The work of the bureau has been encouraged and assisted by local agencies. The bureau and the parent-teacher associations cooperated in the campaign for examination of preschool children. The maternal and infant hygiene work in the full-time county units also was stimulated.

The outstanding achievements of the year were the improvement in midwifery, initiation of hygiene classes, inclusion of maternal and infant hygiene activities in all general nursing service, and the campaign for examination of preschool children who would enter school in the fall.

## MISSOURI

## Administrative agency:

State board of health, division of child hygiene, Jefferson City.

## Staff:

Director (physician), 2 physicians (1 part year), 5 nurses (4 part year), 1 nutrition worker, 1 clerk (part year), 1 stenographer. Twenty county nurses were paid for some maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—349; infants and pre-school children registered and examined—7,335. Defects found—10,263. Parents had approximately 30 per cent of the defects corrected.

Conferences conducted by nurses, no physician present—120; children inspected—1,301.

Little mothers' classes—19; girls enrolled—261; number completing course—218; lessons in course—12.

Mothers' classes—135; mothers enrolled—2,208; lessons in course—10.

Home visits by nurses—5,608 (prenatal cases seen, 399; obstetrical cases, 40; postnatal cases, 245; infants and preschool children, 547).

New permanent child-health centers—5 established as result of State maternity and infancy work. They were supported by county, city, and State funds.

Talks and lectures by staff—116, including 2 by radio.

Community demonstrations—3, in 3 counties, each for a month. These were nursing demonstrations.

A campaign of education in regard to the State law on the prevention of ophthalmia neonatorum was conducted. The use of a 1 per cent solution of silver nitrate is required. The State supplies ampoules of silver nitrate to the physicians free of charge. Birth registration was emphasized in the May Day plans for the State, as Missouri is not in the birth-registration area. Education of the negro population in regard to recording births was a feature of the work. Cooperation with the Negro Industrial Commission was secured, and the secretary of the organization has lectured in the negro schools on the subject. Teachers in the negro schools were requested to make surveys of their districts. Six negro district conventions and the university for negroes were reached. The campaign was still in progress at the end of the year under review. Special schools for registrars were conducted in 4 counties to stimulate more accurate reporting, and 20 organizations stamped the birth-registration slogan on all their outgoing mail.

Literature prepared—reprints of literature issued in previous years.

Literature distributed—25,450 pieces.

New names registered for prenatal letters—810; prenatal letters distributed—744 sets.

Exhibits conducted by staff—14. New exhibit material prepared consisted of a health clown on infant care, also a dental-hygiene exhibit on building strong teeth. The latter covered four features essential to the formation of good teeth; namely, proper tooth-building foods, exercise of teeth (hard foods), daily care, and periodic dental examinations.

Exhibits were lent 45 times.

Scientific articles prepared—24.

Statistical study—1, in regard to the prevention of blindness of infants.

The nutrition worker carried on nutrition work in counties having a full-time health department or public-health nurse. The nutritionist spent a month in each county and met groups of mothers in five communities. During the mornings she devoted her time to underweight children. She conducted 69 classes for mothers, with an attendance of 1,593, and 86 classes for children, with an attendance of 10,383.

Supervision was maintained over all the public-health nurses in the State who were paid in part from State funds, and advisory service was extended to all public-health nurses doing child-hygiene work. Forty-three advisory visits to 27 nurses in 22 counties were made, and a monthly news-letter of advice and extracts from nurses' reports was sent to every public-health nurse in the rural parts of the State.

A survey of the midwife situation was in progress. Most of the midwives of the State are in the Cotton Belt, in the southeastern section of the State, among the negroes.



## Activities—Continued.

Public-health nurses were employed in four towns and one county as a result of the activities of the division.

Breast feeding was promoted by a special film, "Mother's milk best for baby," shown 25 times, also by 48 press releases in local papers on breast feeding.

Nurses were trained in maternity and infancy work through sectional conferences conducted by the chief nurse and the annual public-health meeting.

Infants born in the State in 1925—68,293; infants under 1 year of age reached through the work of the division during the year under review—9,926; preschool children reached—17,723; expectant mothers reached—9,689.

Counties in the State—114; counties having maternity and infancy work during the year—33; counties having maternity and infancy work since the acceptance of the maternity and infancy act—108; counties that have taken over the maternity and infancy work in part—14.

The State parent-teacher association sponsored and conducted summer drives to have preschool children examined and correction of defects made before the children should enter school. They advocated complete birth registration for all preschool children. The State Federation of Women's Clubs advocated district health institutes for the clubs. The women's auxiliary of the State medical association has declared in favor of a public-health nurse in every county of less than 20,000 and a full-time health department in the larger counties.

The outstanding achievement of the year was the establishment of permanent local health organizations following the clinical, educational, and demonstration services of the division of child hygiene.

## MONTANA

## Administrative agency:

State board of health, division of child welfare, Helena.

## Staff:

Director (physician), 3 nurses (2 part time), 1 vital-statistics clerk, 1 stenographer (part time), 1 bookkeeper and clerk (part time), 1 laboratory technician (part time). Twenty-nine physicians received compensation by the day for services at itinerant conferences, and 12 county nurses were paid for some maternity and infancy work.

Volunteer assistants—120 physicians, 73 nurses, 260 lay persons, all at itinerant conferences.

## Activities:

Child-health conferences conducted by physicians—273 (90 by State staff, 183 by county staff); infants and preschool children registered and examined—4,031 (by State, 1,801; by county, 2,230).

Combined prenatal and child-health conferences conducted by physicians—18 (State, 13; counties, 5); prenatal cases registered—67 (State, 33; counties, 34); cases examined—34 (by counties); infants and preschool children registered and examined—223 (at State conferences, 172; at county conferences, 51). Both State and county staffs received maternity and infancy funds.

Parents had approximately one-fourth of the defects found in their children corrected.

Prenatal conferences conducted by physicians—8 (State, 5; county, 3); prenatal cases registered—65 (at State conferences, 15; at county conferences, 50); cases examined—51; visits to conferences—79 (State, 29; county, 50).

Conferences conducted by nurses, no physician present—447 (State, 369; county, 78); children inspected—4,498 (at State conferences, 3,918; at county conferences, 580); visits to conferences—4,810; mothers instructed in prenatal care—312 (at State conferences, 86; at county conferences, 226).

Little mothers' classes—18; girls enrolled—386; lessons in course—10.

Mothers' class—1; mothers enrolled—25; number completing course—25; lessons in course—16.

Home visits by nurses—2,624 (to prenatal cases, 418; obstetrical cases, 3; infants and preschool children, 2,203).



## Activities—Continued.

New permanent combined prenatal and child-health centers—2 established as a result of the State work. They were supported by joint maternity and infancy funds and local funds.

New permanent child-health centers—6 established as a result of the State work. One was supported by tuberculosis funds and five by maternity and infancy funds.

Maternity homes inspected—6.

Infant home inspected—1.

Talks and lectures by staff—723, including 1 by radio; attendance—21,533.

Group demonstrations—13. These were demonstrations of the maternity pack and demonstration of home care of the sick.

Campaigns conducted—3: (1) Birth registration. (2) May Day activities. (3) Assembling of preschool children for examinations.

Literature distributed—95,204 pieces.

New names registered for prenatal letters—405; letters distributed—405 sets.

Exhibits prepared—charts and posters. Exhibits were lent five times.

Statistical studies—4: (1) The use of nitrate of silver as a preventive of ophthalmia neonatorum. (2) Records of births reported. (3) Infant mortality in the State. (4) Maternal mortality in the State.

The laboratory technician has examined 13,610 specimens (Wassermann tests, 9,073; diphtheria cultures, 1,689; also sputum, Widal, blood, and milk tests, smears, and urinalyses).

Breast feeding was promoted by sending a pamphlet on the subject to all physicians in the State.

Staff nurses were given training by being sent when possible to take short courses in maternity and infancy work in the Maternity Center Association of New York City.

Infants born in the State during the year—10,200; infants and preschool children reached through the work of the division—10,955; expectant mothers reached—1,267.

Counties in the State—56; counties having maternity and infancy work during the year—49; counties having maternity and infancy work since the acceptance of the maternity and infancy act—56; counties that have taken over the maternity and infancy work—2.

The outstanding achievement of the year was the promotion of new public health nursing services in six counties. Ten services received some aid for one to three months during the year.

## NEBRASKA

## Administrative agency:

State department of public welfare, bureau of health, division of child hygiene, Lincoln.

## Staff:

Director (nurse), 2 nurses, 1 social worker (part time), 1 vital-statistics clerk, 1 stenographer.

Volunteer assistants—physicians and lay persons at child-health conferences.

## Activities:

Child-health conferences conducted by physicians—74; infants and preschool children registered and examined—3,619. Defects found—8,289. Parents had approximately 30 per cent of the defects corrected.

Little mothers' classes—2; girls enrolled—95; number completing course—90; lessons in course—3. These were conducted by Indian nurses in two church schools for Indian girls.

Mothers' classes—5; mothers enrolled—199; number completing course—175; lessons in course—4.

Dental conferences conducted by dentists—63; preschool children receiving dental advice—1,390.

Home visits by nurses—2,069 (prenatal cases seen, 33; obstetrical cases, 6; postnatal cases, 8; infants, 362; preschool children, 863). Of these visits 1,737 were to Indians.

New permanent child-health center—1 established for which the division director acted in an advisory capacity. (This was not organized through the work of the division of child hygiene.) The center was supported by local funds.

## Activities—Continued.

Maternity homes inspected—91; inspections made—91, by the social worker on the staff.

Infant homes inspected—9; inspections made—9, by the social worker.

Talks and lectures by staff—72, including 3 by radio; attendance—2,124.

Group demonstrations in maternal and infant care were given in classes and homes among the Indians.

The "Get ready for school" campaign was conducted in 34 counties, with 54 conferences for the examination of children who were to go to school in the fall. The number of preschool children examined was 1,216. Some younger children (755) also were examined, because many of these conferences were conducted in outlying districts, where distances were great and facilities for communication were few. Defects found in the preschool group numbered 3,730; in the younger group (including infants), 1,873. These conferences and the children examined are included in the figures for child-health conferences and defects already reported. The campaign was conducted with the assistance of the United States Children's Bureau nurses, who made preliminary surveys and made contacts with local physicians, nurses, superintendents of schools, and lay groups. Local agencies assisting with the "Get ready for school" campaign were the State parent-teacher association, Red Cross chapters, women's clubs, Woman's Christian Temperance Union, American Legion and auxiliary, and the Chamber of Commerce of Lincoln, Nebr.

A questionnaire relating to the prenatal care of obstetrical cases was mailed to physicians with copies of Standards of Prenatal Care. Questionnaires sent—1,453; number returned—258.

Literature prepared—Mothercraft Lessons, Infant-Hygiene Lessons, suggestions for "Get ready for school" conferences, and dodgers.

Literature distributed—33,960 pieces.

New names registered for prenatal letters—467; prenatal letters distributed—348 sets.

Exhibits conducted by staff—2. Exhibit material prepared—posters and obstetrical packages. Exhibits were lent three times.

A tabulation was made of deaths (by counties) of infants under 1 year, stillbirths, and deaths of women from puerperal causes. This was made preliminary to the "Get ready for school" campaign to determine what localities had the highest puerperal and infant mortality rates and where effort should be made to secure conferences. The study was made by a nurse detailed by the United States Children's Bureau to assist in the work of the division.

Nutrition instruction was given to all mothers at conferences and during home calls.

The midwife situation has improved each year, and the number of midwives is diminishing.

Breast feeding was stressed through individual conferences and the literature distributed.

Public-health nurses were instructed in maternity and infancy work through conferences and were encouraged to take special graduate courses.

Infants born in the State in calendar year 1925—29,179; infants under 1 year of age reached by the work of the division during the year under review—8,427; preschool children reached—3,152; expectant mothers reached—4,743.

Counties in the State—93; counties having maternity and infancy work during the year—68; counties having maternity and infancy work since the acceptance of the maternity and infancy act—68.

The outstanding achievement of the year was the "Get ready for school" campaign, which aroused the interest of the people of the State to send their children to school in as good physical condition as possible.

## NEVADA

## Administrative agency:

State board of health, child-welfare division, Reno.

## Staff:

Director (nonprofessional). Nine county nurses were paid for some maternity and infancy work.

## Activities:

Conferences conducted by nurses, no physician present—317; children inspected—2,304; mothers instructed in prenatal care—87.

Little mothers' classes—12; girls enrolled—98.

Mothers' classes—10; mothers enrolled—104.

Home visits by nurses—9,486 (to prenatal cases, 544; to maternity cases, 126; to infants and preschool children, 6,114; remainder of visits not itemized).

Group demonstrations—88, relating to the care of the baby, such as making formulas and bathing, and the general hygiene of the infant and preschool child.

The State is not in the birth-registration area, but plans are under way for dividing the State into smaller registration districts with a view to the enactment of the model law.

Breast feeding was stressed in the instruction given by nurses to the mothers.

Expectant mothers reached during the year by the work of the division—460.

All the 17 counties in the State had maternity and infancy work during the year. No counties have taken over entirely the maternity and infancy work, but 3 counties partly financed the nurses.

The Nevada Public Health Association gave \$25 per month toward the salary of each of seven of the county nurses who did maternity and infancy work.

The outstanding achievement of the year was the vote at the State medical association meeting to work out a program for the nurses' conference in 1926.

## NEW HAMPSHIRE

## Administrative agency:

State board of health, division of maternity, infancy, and child hygiene, Concord.

## Staff:

Director (nurse), 6 nurses, 2 stenographers. Eighty-three physicians made examinations at child-health conferences, being paid a small sum for each conference.

## Activities:

Child-health conferences conducted by physicians—96; infants and preschool children registered and examined—3,898. Local permanent committees of women were responsible for the conferences. They did such thorough work that every child under 6 years of age in some of their districts was present and examined, and they followed up the children to see that corrections were made. Defects found—2,429. Parents had defects corrected in 1,391 children.

Mothers' classes—6; mothers enrolled—189; number completing course—180.

Home visits—13,562 (to prenatal cases, 893; obstetrical cases, 31; post-natal cases, 407; infants, 4,803; preschool children, 7,428). The staff had under supervision 8,467 preschool children with a card-index record of them in the office.

The prenatal work of the division was a major feature. Contracts with expectant mothers were made in various ways. The obstetrical package was used in 42 towns in the State, local women having charge of the packages. This service was greatly appreciated by the physicians. Printed instructions on care during pregnancy were distributed to 15,000 women.

Maternity homes inspected—33; number of inspections—33.

Infant homes inspected—37; number of inspections—37.

Talks and lectures by staff—135, including 1 by radio.

Literature prepared—Revised Baby Book, routine for conferences, revised diet slip.

Literature distributed—218,520 pieces.

Exhibits conducted by staff—110. Exhibit material prepared—posters, miniature exhibit of a model bedroom, clinic, and home. Exhibit material was lent 91 times.

Breast feeding was promoted through close supervision of prenatal cases and sending a pamphlet on breast feeding to each prenatal case reported,



## Activities—Continued.

The public-health nurses were trained in maternity and infancy work by being sent to the Maternity Center Association in New York, also through frequent nurses' conferences.

Infants born in the State during the year—9,401; infants under 1 year of age reached through the work of the division—9,401; preschool children reached—16,829; expectant mothers reached—1,193.

All the 10 counties in the State had maternity and infancy work during the year. Two cities have taken over the work begun with maternity and infancy funds.

The outstanding achievement of the year was the success of the child-health conferences and the fact that the women's committees have become so thoroughly trained that the conference work was carried on by them with very little assistance from the division.

## NEW JERSEY

## Administrative agency:

State department of health, bureau of child hygiene, Trenton.

## Staff:

Consultant (physician), 30 nurses, 3 vital-statistics clerks (2 part year), 3 clerks, 3 stenographers, 1 multigraph operator (part year). The 30 nurses gave service as follows: 16 as field nurses (1 part time, 8 part year), 3 as assistant supervisors (part year), 10 as midwife inspectors (6 part year), 1 as teacher of infant and child care (part year).

Volunteer assistants—115 physicians, 3 dentists.

## Activities:

Child-health conferences conducted by physicians—676; infants and preschool children registered and examined—554; visits to conferences—4,431. Defects found—1,003. Parents had 697 defects corrected.

Prenatal conferences conducted by physicians—18; prenatal cases registered and examined—55; visits to conferences—57.

Conferences conducted by nurses, no physician present—167; children inspected—307; mothers instructed in prenatal care—86; visits to conferences—1,051 (by prenatal cases, 86; by children, 965).

Little mothers' classes—9; girls enrolled—135; number completing course—135; lessons in course—10.

Mothers' classes—26; mothers enrolled—158; number completing course—147. Twelve classes were conducted in cooperation with the home-demonstration bureau. Ten classes were given in the State reformatory for women.

Midwife county associations—10 organized; midwives enrolled—325; number carried over from previous year—300. The midwife situation has improved greatly as a result of the licensing and supervision of midwives. In 1919 the number of midwives licensed in the State was 946. A survey in 1920 showed that 262 were practicing without a license. The 1925 figures showed 387 midwives licensed and 11 reported as unlicensed. Midwives delivered about 21 per cent of the babies in the State during 1925. The standard of midwifery has been raised by the supervision. Midwives were instructed to secure prenatal care and at least one complete physical examination by a physician for their patients. Each year a State midwives' conference is held, and county meetings occur through the year. In 1919 midwives delivered 30,000 babies; in 1925 they delivered 16,000. Midwives are licensed by the State medical board, and all the midwives in the State under supervision had licenses. The 11 unlicensed midwives were referred to the State board of medical examiners for prosecution.

Home visits by nurses—65,870 (prenatal cases seen, 808; postnatal cases, 755; infants, 3,803; preschool children, 3,367).

New permanent child-health centers—9 established as a result of the State work. They were supported by maternity and infancy funds.

New permanent prenatal centers—2 established as a result of the State work. They were supported by local funds.

Maternity homes inspected—28; inspections made—168.

Infant homes inspected—241; inspections made—964.

Talks and lectures by staff—194.



## Activities—Continued.

Community demonstrations—15. Districts were arranged to keep 100 babies and 1,000 children under supervision, the demonstrations to continue under State staff for one year, the community then to assume the financial responsibility with supervision by the State staff.

Group demonstrations are part of the nurses' daily work.

Dental conferences conducted by dentists were a part of the demonstrations in rural districts relating to the care of the preschool child. Three expectant mothers and 20 preschool children received dental advice.

A campaign was conducted for the examination of the preschool child through permanent preschool clinics.

Surveys—2: (1) The care of unmarried mothers. A uniform system of caring for unmarried mothers was established between the hospitals of the State and the State department of health. From 1,000 to 1,200 illegitimate births are reported in the State each year. Fifty-six hospitals and 38 individuals or established agencies were requested to assist in the work, which contemplated putting the proper social agency in touch with the mother as early as possible and having provision made for keeping mother and baby together in order that the baby might be breast fed and the mortality rate among illegitimate babies reduced. (2) The midwives have been taught how to make urinalysis, and a check-up on their methods was made.

Literature prepared—Annual Report, Midwifery Folder, Rickets.

Literature distributed—approximately 58,600 pieces.

Exhibits conducted by staff—4. Exhibit material prepared—maps and charts. Large exhibits were lent four times. Small places had an average of a weekly exhibit.

Breast feeding was stressed in the nurses' visits, through literature, and through the survey on the care of the unmarried mother.

Public-health nurses were trained in maternity and infancy work through special courses in a demonstration station conducted in the Trenton Normal School and through monthly group conferences with supervisors, nurses, and the consultant of the bureau.

Infants born in the State during the year—74,193; infants under 1 year of age reached through the work of the bureau—22,066 (3,803 by the workers paid by maternity and infancy funds, 18,263 by workers paid by unmatched State funds); preschool children reached—12,750 (3,637 by workers paid by maternity and infancy funds, 9,113 by State workers); prenatal cases reached—922.

All the 21 counties in the State had maternity and infancy work during the year; 18 counties had nurses carrying on child-hygiene work through local, State, or maternity and infancy funds (13 for boarding-home, maternity-home, and midwifery work only). Work in New Jersey is not done on a county basis.

The outstanding achievements of the year were the placing of a special instructor in child hygiene in the normal schools to instruct student teachers on the value of maternity and infancy work and the establishment of a state-wide uniform system in the care of the unmarried mother to prevent the separation of mother and baby.

## NEW MEXICO

## Administrative agency:

State department of public welfare, bureau of public health, division of child hygiene and public-health nursing, Santa Fe.

## Staff:

Director (nurse), 2 nurses, 1 vital-statistics clerk, 1 bookkeeper (part time), 1 stenographer (part time). Six county nurses were paid for some maternity and infancy work.

Volunteer assistants—26 physicians, 6 dentists, 5 nurses, 85 lay persons.

## Activities:

Child-health conferences conducted by physicians—102; infants and preschool children registered and examined—1,691; visits to conferences—2,162; total examinations—1,792. Defects found—3,961. The parents had defects corrected in 1,058 children.

Conferences conducted by nurses, no physician present—108; children inspected—1,470; mothers instructed in prenatal care—475; visits to conferences—2,697 (prenatal cases, 610; children, 2,087).

## Activities—Continued.

- Little mothers' classes—34; girls enrolled—700; number completing course—656; lessons in course—10.
- Mothers' classes—5; mothers enrolled—88; number completing course—76; number still on roll—12; lessons in course—7.
- Midwives' classes—4; midwives enrolled—99; number completing course—82; lessons in course—10. There has been an improvement in the midwife situation in the three counties where the Children's Bureau midwife instructor worked in the previous fiscal year. All midwives inspected were found to be carrying clean equipment. In other counties where instruction has been given the reporting of births was better and physicians were called more frequently.
- Home visits by nurses—6,851 (prenatal cases seen, 685; obstetrical and postnatal cases, 108; infants and preschool children, 1,776).
- New permanent combined prenatal and child-health centers—14 established as a result of the division's work. They were supported by county and by maternity and infancy funds.
- Talks and lectures by staff—280; attendance—6,597.
- Community demonstrations—8, on maternity and infancy work in a county program. Two nurses on the State staff carried these on in eight counties for a period of three or four months each.
- Group demonstrations—407, relating to infant and child care.
- Campaigns—5, conducted in 7 counties (birth registration and toxin-antitoxin).
- Surveys—5: (1) Sanitary conditions in 6 hospitals. (2) The midwives of 10 counties. (3) Birth registration in 10 counties. (4) Preschool children in one county, to insure vaccination and correction of defects. (5) Causes of deaths of infants and preschool children (made from records of births and deaths).
- Literature distributed—15,039 pieces.
- Exhibits conducted by staff—20. Exhibit material was lent four times. A Spanish poster on birth registration was prepared. Scientific articles prepared for publication—2.
- Nutrition work was carried on by the nurses in connection with their home visits and at health conferences.
- Local agencies assisted in the maternity and infancy work. One county nurse and four school nurses not financed by maternity and infancy funds made home visits as follows: Prenatal cases—157, infants and preschool children—2,388, maternity cases—43, and midwives—53. They assisted materially in the toxin-antitoxin campaign and in smallpox and typhoid immunization. One school nurse conducted several little mothers' classes.
- May Day programs were conducted over the State, school and county nurses and women's groups cooperating with the State staff.
- The State is not in the birth-registration area. The staff nurses visited county health officers and subregistrars in an effort to bring the State into the area. They also located infants through schools, baptismal records, child-health conferences, and home visits.
- Breast feeding was stressed in talks and through literature.
- Training for public-health nurses in maternity and infancy work was furthered by yearly nurses' conferences and the use of a loan library.
- Infants born in the State, July 1, 1925, to June 1, 1926—9,738; infants under 1 year of age reached by the work of the division during the year under review—9,738; expectant mothers reached—1,100.
- Counties in the State—31; counties having maternity and infancy work during the year—14; counties having maternity and infancy work since the acceptance of the maternity and infancy act—21; county that has taken over maternity and infancy work—1.

The outstanding achievements of the year were the development of intensive maternity and infancy programs in six counties through nurses paid in part by maternity and infancy funds and the extension of interest to other counties and the request for the services of staff nurses.

## NEW YORK

## Administrative agency:

State department of health, division of maternity, infancy, and child hygiene, Albany.

## Staff:

Director (physician), 1 physician, 25 nurses (including 2 midwife supervisors), 23 nurses at local points (half time), 1 nutrition worker, 5 clerks, 2 stenographers, 1 organizer, 1 advance agent for child-health conferences, 1 chauffeur for child-health conferences. Twelve county nurses were paid for some maternity and infancy work. In addition 30 physicians examine in child-health and prenatal conferences and receive Federal honoraria, serving one-fourth of a month each year; 86 physicians examine children twice yearly, and 40 physicians act as regional consultants.

Volunteer assistants—1 dentist, 12 motor corps of 3 to 6 members each in connection with prenatal consultations.

## Activities:

Child-health conferences conducted by physicians—1,275; infants and pre-school children examined—4,997; visits to conferences—10,070.

Prenatal conferences conducted by physicians—1,283; prenatal cases registered—4,600; prenatal cases examined—2,545; visits to conferences—10,027.

Conferences conducted by nurses, no physician present—585; children inspected—approximately 2,500; mothers instructed in prenatal care—approximately 350; visits to conferences—6,659 (by prenatal cases, 393; by children, 6,266).

Little mothers' classes—274; girls enrolled—1,777; number of lessons varied. Mothers' classes—182; mothers enrolled—915; lessons in course—4 to 8.

Dental conferences were conducted by a dental hygienist, at which 616 preschool children received dental advice.

Home visits by nurses—50,680 (to prenatal cases, 6,454; obstetrical cases, 145; postnatal cases, 8,156; infants, 26,187; preschool children, 9,738).

New permanent combined prenatal and child-health centers—9 established as a result of the work of the staff. They were supported locally.

New permanent child-health centers—10 established as a result of the work of the staff. They were supported locally.

New permanent prenatal centers—3 established. Two were organized by the State staff, one of these being turned over to the community later. One was organized as a result of its promotion by the staff. Two were supported locally, one by the State.

Maternity homes inspected—39.

Infant homes inspected—365.

Talks and lectures by staff—388, including 3 by radio.

Community demonstrations—161, including 22 half-time maternity and infancy nursing demonstrations, 5 full-time nursing demonstrations, and 134 demonstrations of child health and prenatal consultations in communities.

Group demonstrations—13,273, on some phase of maternity and infancy work in connection with infant-welfare stations and demonstration centers.

Cooperation was given in a state-wide toxin-antitoxin campaign.

Surveys—4: Maternity hospitals, midwives, boarding homes, and birth registration.

Literature prepared—diet leaflets, Diet and Nutrition in Children's Summer Camps, 1925 maternity and infancy report.

Literature distributed—180,713 pieces.

Graduate courses in maternity and infancy work were given to graduate nurses who had obstetrical training.

Graduate courses—14, consisting of 72 lectures on pediatrics, to physicians in 25 counties; and 15, consisting of 87 lectures on obstetrics, to physicians in 23 counties.

Exhibits conducted by staff—64, at fairs. Exhibit material prepared or bought—automatic motion-picture machine and film, projector, film on breast feeding, cardboard food models for fair work, layettes, trays, exhibit of apparel for expectant mothers. Exhibits were lent 97 times. Four window exhibits were conducted. The automatic motion-picture machine with film was placed in a department-store window in connection with a display of infants' wear. A nurse was detailed to the store to give lectures and demonstrations on maternity and infant care.

Scientific articles prepared—7.



## Activities—Continued.

A nutritionist gave 9 courses for nurses and 40 lectures to lay groups and assisted with dietaries for institutions.

Local agencies continued work initiated by the State staff. Local nurses conducted little mothers' leagues and mothers' classes and included other forms of maternity and infancy work in their activities. Loan closets were maintained by local groups. May Day was featured by local communities. Breast feeding and prenatal work have had support and assistance from communities; and a fraternal order maintained a child-health center.

Maternity and infancy work has had the attention of 35 members of the staff of the division not receiving compensation from the matched Federal and State funds, but paid wholly from unmatched State funds. These members of the staff conducted 188 child-health conferences, at which 3,690 infants and preschool children were registered and 3,280 were examined by physicians. They conducted 263 prenatal conferences, at which 741 prenatal cases were registered and 664 examined by physicians and to which 1,496 visits were made by expectant mothers. They organized 210 mothers' classes, with an enrollment of 3,842 mothers. The dental hygienist conducted 40 dental conferences and gave dental advice to 543 preschool children. This part of the staff was responsible for 178 community demonstrations, of which 147 related to child health and 31 related to prenatal care. During the year they reached 454 babies, 3,126 preschool children, and 821 expectant mothers.

Promotion of breast feeding was an integral part of the program in all demonstrations conducted by the division and in almost all the independent infant-welfare stations.

To train public-health nurses in maternity and infancy work it was planned to develop one demonstration as a teaching center. Consultant nurses held classes in maternity and infant hygiene. Nurses also were sent to centers in New York City to observe procedures.

Infants born in the State during the year—224,049; infants under 1 year of age reached through the work of the division—25,600; preschool children reached—10,264; expectant mothers reached—30,429.

All the 57 counties in the State (outside New York City) had maternity and infancy work during the year. Eleven counties have taken over the maternity and infancy work.

The outstanding achievement of the year was the graduate courses in obstetrics and pediatrics for physicians. They developed cooperation from the physicians with the child-health conferences and prenatal conferences, also keener interest in better standards of obstetrical care and a better understanding of the aims of the division.

## NORTH CAROLINA

## Administrative agency:

State board of health, bureau of maternity and infancy, Raleigh.

## Staff:

Director (physician), 2 physicians (1 part time), 4 staff nurses, 1 mailing clerk, 1 secretary. Seventeen county nurses were paid partly from maternity and infancy funds and devoted all their time to maternity and infancy work.

Volunteer assistants—85 physicians.

## Activities:

Child-health conferences conducted by physicians—486; infants and preschool children registered—8,214; number examined—6,140; visits to conferences—17,623. Defects found—3,280. Parents had defects corrected in 1,440 children.

Prenatal conferences conducted by physicians—20; prenatal cases registered and examined—1,254; visits to conferences—6,036.

Conferences conducted by nurses, no physician present—1,012; children inspected—890; mothers instructed in prenatal care—1,057; visits to conferences—3,804 (by expectant mothers, 2,160; by children, 1,644).

Midwives' classes—130; midwives enrolled—1,446; number completing course—1,160; number still on roll—70; lessons in course—6. A survey of midwives in 18 counties was made. There are approximately 6,000 midwives practicing in the State. More than 2,000 were under close



## Activities—Continued.

- supervision and have been given intensive instruction. These women have improved in appearance and in their practice, have a standardized equipment, are cleaner, interfere less during labor, and call a physician in complicated cases. Reports from counties having a program of maternity and infancy work indicated a substantial increase in the number of cases in which physicians were called by midwives. In the year 1925 physicians attended 68.4 per cent of the 83,700 births in the State and midwives attended 31.6 per cent. Of the white babies born physicians attended 86 per cent, midwives 14 per cent. Of the negro babies born physicians attended 28.8 per cent, midwives 71.2 per cent.
- Home visits by nurses—31,950 (prenatal cases seen, 5,218; postnatal cases, 4,260; infants, 9,066; preschool children, 7,030).
- New permanent combined prenatal and child-health centers—2 established as a result of the maternity and infancy work. They were supported by Federal and State and county funds.
- Talks and lectures by staff members—34.
- Community demonstrations—17. These were permanent centers established to demonstrate and conduct maternity and infancy work.
- Literature distributed—120,957 pieces.
- New names registered for prenatal letters—11,744; prenatal letters distributed—11,744 sets.
- Scientific articles prepared—6.
- Nutrition work was started to supplement the examinations in conferences and the nurses' visits.
- The director and the staff nurses supervised local work. A pediatrician acted as a supervisor of clinics and assisted health officers in general organization plans. The four staff nurses assisted county nurses.
- Two county training centers were maintained for the purpose of training public-health nurses in maternity and infancy work.
- Infants born in the State July 1, 1925, to June 1, 1926—75,266; infants and preschool children reached by the work of the bureau during the year under review—28,192; expectant mothers reached—11,744.
- Counties in the State—100; counties having maternity and infancy work during the year—18; counties having maternity and infancy work since the acceptance of the maternity and infancy act—30. No county has taken over the work wholly, but two counties receiving maternity and infancy funds have added to their staff other nurses to do maternity and infancy work.
- The outstanding achievement of the year was the supervision of midwives and the conducting of infant and preschool-child conferences.

## NORTH DAKOTA

## Administrative agency:

State department of public health, division of child hygiene and public-health nursing, Bismarck.

## Staff:

Director (physician), 1 physician (part year), 3 nurses (2 part time, 1 part year), 1 stenographer (part year).

## Activities:

- Combined prenatal and child-health conferences conducted by physicians—148; prenatal cases registered and examined—20; infants and preschool children registered and examined—4,366.
- Child-health conferences conducted by physicians—22; infants and preschool children registered and examined—791.
- Defects found—6,212. Parents had approximately one-half of the defects corrected.
- Home visits by nurses—5,410 (to prenatal cases, 605; obstetrical case, 1; postnatal cases, 434; infants, 229; preschool children, 4,141).
- Talks and lectures by staff—16.
- Literature distributed—11,358 pieces.
- Statistical studies—2.
- Survey—1, of birth registration.
- Breast feeding has been stressed in all conferences.
- Infants born in the State during the year—14,385; infants and preschool children reached—5,157; expectant mothers reached—75.

## Activities—Continued.

Counties in the State—53; counties having maternity and infancy work during the year—18; counties having maternity and infancy work since the acceptance of the maternity and infancy act—26.

The outstanding achievement of the year was the arousing of greater interest in the health of the infant and preschool child, as indicated by the increase in attendance at conferences and the increase in requests for conferences throughout the State.

## OHIO

## Administrative agency:

State department of health, division of child hygiene, Columbus.

## Staff:

Director (physician, part year), 2 physicians (part year), 5 nurses (2 part year), 1 publicity worker (part time), 1 nutrition worker, 1 financial clerk (part time), 1 supervisor of nurses (part time), 1 maternity-home inspector, 1 vital-statistics clerk, 1 clerk, 2 motion-picture operators (1 one month), 1 lecturer. Eight county nurses were paid in full from maternity and infancy funds (5 part year).

## Activities:

Child-health conferences conducted by physicians—77; infants and preschool children registered and examined—2,663. These included special meetings in which a baby was examined before the audience. The State plan was to decentralize the health work and place the work in the county and city health departments. Consequently many conferences were conducted in county health units and in city departments, in addition to the 77 given above.

Conferences conducted by nurses, no physician present—11; visits by children—404. These conferences were at weighing stations. Many other conferences of this type were conducted in county units and city health departments.

Little mothers' classes—9; girls enrolled—231; number completing course—224; lessons in course—12. These classes were part of the work of the local health departments.

Home visits by nurses—17,545 (prenatal cases seen, 693; infants, 2,054; preschool children, 2,125).

New combined prenatal and child-health center—1 established as a result of maternity and infancy work. It was supported by local funds.

New permanent child-health centers—several established in four counties as a result of maternity and infancy work. They were supported by county and State funds.

Maternity hospitals inspected—213; inspections made—228.

Talks and lectures by staff—910, including 10 made by radio.

Community demonstrations—in 5 counties. These were county nursing demonstrations and were for limited periods of time.

A May Day campaign was conducted by the State public-health association and State health department.

Literature distributed—approximately 100,000 pieces, mostly through the local departments of health. This included 18,000 copies of prenatal literature.

Prenatal letters were written in the division and offered to the county health departments for distribution. Fifteen county health officers were sending them to expectant mothers.

Training of public-health nurses in maternity and infancy work was afforded two of the public-health nurses in a month's observation of the child-health demonstration at Mansfield.

Exhibits conducted—10, at the State fair and county fairs. A truck with motion pictures and posters was used. New equipment was added.

Scientific articles prepared—2.

The nutrition work was mainly lectures and classes.

Supervisory service was given by the three nurses from the staff who visited the public-health nurses in the State periodically.

County public-health nurses not receiving maternity and infancy funds reported 340,896 home visits, of which 83,423 were child-hygiene visits.

Infants born in the State from July 1, 1925, to May 31, 1926—115,407; infants reached through the work of the division during the year under review—3,054 (also about 65,000 indirectly through local departments of

## Activities—Continued.

health); preschool children reached—3,688 (also about 100,000 through local departments of health).

There was no record of the number of expectant mothers reached through the maternity and infancy work, but 18,000 pieces of prenatal literature were distributed.

Counties in the State—88; counties having maternity and infancy work during the year—70. Nearly all the counties were doing maternity and infancy work before the acceptance of the maternity and infancy act, but the work has been enlarged and stimulated as a direct result of the act.

Special features of the work in the State have been the examinations made of preschool children who were to enter school in the fall. This work was requested by parent-teacher associations, the division furnishing pediatricians and nurses. Many counties conducted children's conferences for this purpose without the aid of the State staff.

## OKLAHOMA

## Administrative agency:

State department of public health, bureau of maternity and infancy, Oklahoma City.

## Staff:

Director (physician), 6 nurses, 2 vital-statistics clerks (part year), 2 clerks, 1 stenographer, 1 field worker. Five county nurses were paid for some maternity and infancy work.

Volunteer assistants—4 physicians, 1 dentist.

## Activities:

Child-health conferences conducted by physicians—41; infants and preschool children registered and examined—797. Defects found—2,119.

Conferences conducted by staff nurses—5; children inspected—55. (For report of 4 conferences conducted by county nurses see p. 61.)

Little mothers' classes organized—37; girls enrolled—1,398; number completing course—1,393; lessons in course—5.

Mothers' classes—19; mothers enrolled—250; number completing course—228; lessons in course—6. An outline for the course was prepared in the State department covering prenatal, infant, and child care. The course

was conducted by a nurse assisted by local physicians who gave lectures.

Training classes for teachers—12; teachers enrolled—537; number completing course—354; number still on roll—181; lessons in course—18.

The purpose was to fit teachers to conduct classes in child care, which has been made a subject in the public-school curriculum.

Home visits by nurses—4,427, to expectant mothers and preschool children.

New permanent child-health centers—2 established as a direct result of the maternity and infancy work done in the State. They were supported by their respective communities, except that one nurse from the State staff served at the centers. Local physicians made the examinations.

Talks and lectures by State staff—1,766.

Group demonstrations—454, before farm-women groups, women's clubs, and classes.

Surveys—6: (1) Hospitals. (2) Midwives. (3) Birth registration. (4) 2 of preschool children. (5) Resources of Oklahoma City as training center for nurses.

Literature prepared—diet cards, Health-Land Flyer folder.

Literature distributed—295,000 pieces (State pamphlets, 230,000; Federal literature, 65,000).

New names registered for prenatal letters—11,219; prenatal letters distributed—14,506 sets.

A graduate course in pediatrics for physicians was given in 7 counties through the university-extension department, assisted by the State bureau of maternity and infancy. The course lasted 12 weeks, each lesson consisting of a one-hour lecture and a two-hour clinic. A second course began June 1 in 5 additional counties. In the first course the enrollment was 117 and the number of clinic cases 308. The second course had an enrollment of 81; the number of clinic cases could not be reported because the course was not completed by the end of the year under review. A request has been made for a course in obstetrics.

Exhibits conducted by staff—461.



## Activities—Continued.

The county nurses paid in part by maternity and infancy funds conducted 49 child-health conferences in which children were examined by physicians. The number of children examined was 837. They also conducted 4 conferences without physicians, inspecting 25 children. They organized 6 mothers' classes with an enrollment of 76 mothers. They made 1,050 home visits to 1,158 cases (prenatal cases, 116; obstetrical cases, 45; postnatal cases, 349; infants, 215; preschool children, 423). They made surveys of midwives in 4 counties.

The State is not in the birth-registration area. The two clerks were paid in part by the bureau of maternity and infancy to bring the card-index files to date. The field workers visited registrars, physicians, undertakers, and midwives in order to secure delayed birth-registration reports.

Infants born in the State during the year—55,000; infants under 1 year of age reached by the work of the bureau—9,263; preschool children reached—27,034; expectant mothers reached—approximately 12,000.

Counties in the State—77; counties having maternity and infancy work during the year—65; counties reached by maternity and infancy work since the acceptance of the maternity and infancy act—73.

The outstanding achievements of the year were the course for physicians in pediatrics and the classes formed to develop trained parents through the high schools and teacher-training courses in child care.

## OREGON

## Administrative agency:

State board of health, bureau of child hygiene, Portland.

## Staff:

Director (physician, the State health officer serving), assistant director (nurse, part time), 1 vital-statistics clerk (2 months), 1 stenographer (part time). Twelve county nurses were paid from maternity and infancy funds.

Volunteer assistants—7 physicians, 10 dentists, 3 nurses, 60 lay persons.

## Activities:

Child-health conferences conducted by physicians—72; infants and preschool children registered and examined—1,692. Defects found—1,887. Parents had defects corrected in approximately 75 per cent of the children. Prenatal conferences conducted by physicians—198; prenatal cases registered—227; number examined—220; visits to conferences—1,825.

Conferences conducted by nurses, no physician present—250; children inspected—564; mothers instructed in prenatal care—35.

Little mothers' classes—12; girls enrolled—161; number completing course—141; lessons in course—8 to 15.

Mothers' classes—4; mothers enrolled—62; number carried over from previous year—22; number completing course—40; number still on roll—22; lessons in course—6 to 12.

Dental conferences—68; mothers receiving dental examinations or advice—30; preschool children receiving dental examinations—253.

Home visits—3,836 (prenatal cases seen, 286; obstetrical cases, 2; postnatal cases, 38; infants and preschool children, 2,957).

New permanent child-health centers—24 established as a result of the maternity and infancy work. They were supported by local funds.

Talks and lectures by staff—174.

Community demonstrations—10. One was at an industrial camp to interest the people in annual examinations. Three counties had demonstrations in getting ready for school. Immunizations for diphtheria were demonstrated in 3 counties.

Group demonstrations—30, relating to maternal and child care.

Campaigns—5, on immunization for diphtheria, clean milk, and loan closet. Survey—a dental survey was made in one county.

Literature distributed—12,000 pieces (including Infant Care and Prenatal Care).

New names registered for prenatal letters—1,100; prenatal letters distributed—990 sets.

Exhibits conducted by staff—59. Exhibit material prepared—layettes, charts, slides, obstetrical kits, and posters. Exhibits were lent 50 times.



## Activities—Continued.

Scientific articles prepared—12, concerning goiter prevention, diphtheria immunization, and other subjects.

Nutrition classes—261 at the child-health conferences, with the aid of home demonstration agents. Individual instruction also was given by nurses.

Infants born in the State during the year—15,099; infants under 1 year of age reached through the work of the division—approximately 2,000; preschool children reached—approximately 3,000; expectant mothers reached—approximately 3,000.

Counties in the State—36; counties having maternity and infancy work during the year—22; counties having maternity and infancy work since the acceptance of the maternity and infancy act—36.

The outstanding achievement of the year was the stimulation of maternity and infancy work through conferences, surveys, and class work. The five counties assisted by maternity and infancy funds are on a more substantial basis and will probably be in a position to take over the work in the coming year.

## PENNSYLVANIA

## Administrative agency:

State department of health, bureau of child health, preschool division, Harrisburg.

## Staff:

Director (physician), 6 physicians (3 part year, part time), 12 nurses (all part time, 6 part year; 1 detailed to a county, 11 detailed to towns and districts), 2 dental hygienists (part year), 2 midwife supervisors, 26 vital-statistics clerks (employed to send birth-registration certificates beginning July 1, 1924), 5 stenographers, 4 field organizers (1 part year). The public health nursing division employed 125 to 135 State nurses. This division receives maternity and infancy funds prorated on a basis of actual number of days of service given to maternity and infancy work. Three of these nurses gave full time to maternity and infancy work. One supervised the work of the nurses in the child-health centers. Volunteer assistants—1,022 physicians (at centers), several dentists (at centers), many lay persons (each center has a lay committee).

## Activities:

Child-health conferences conducted by physicians at State centers—6,623; infants and preschool children registered and examined—10,450; visits to conferences—63,179.

Child-health conferences conducted by physicians at non-State centers—12,501; children registered and examined—64,075; visits to conferences—262,532 (including attendance at the 10 municipal clinics of Philadelphia).

Defects corrected January 1 to June 30, 1926—5,654.

Prenatal conferences conducted by physicians at State centers—415; prenatal cases registered and examined—291; visits to conferences—1,351.

Prenatal conferences conducted by physicians at non-State centers—6,362; prenatal cases registered and examined—15,290; visits to conferences—67,820.

Midwives' classes—4; midwives enrolled—443; number completing course—156; lessons in course—9 (extending over a period of three years). The midwife situation has improved, and standards have been raised. Fewer deaths from sepsis occurred in the practice of midwives in the year 1925 than in earlier years. The midwives of the State are mostly of the foreign type and practice chiefly in the coal regions. The instruction through classes was only a part of the midwife-instruction supervision. A physician was detailed to instruct and supervise the midwives in four anthracite counties (surveyed the previous year) and to follow up these cases with the aid of the State nurses and to regulate their practice, spending a week at a time in each county. An additional physician was detailed in March, 1925, to conduct similar work in five more counties in the coal fields. Surveys of midwives were conducted in three counties. Two intercounty midwife meetings were conducted in the spring.

## Activities—Continued.

Dental conferences conducted by dentists in the health car (begun June, 1925) were continued in July and August of 1925, and conducted also during June, 1926. The number of preschool children given dental advice in the health car was 2,214 in the three months of 1925 and 1,031 in June, 1926.

Home visits by State nurses—85,652 (to prenatal cases, 6,652; to infants and preschool children, 79,000).

New permanent child-health centers established—33 (by the division, 16; by non-State agencies, 17). All State centers are organized by the State division. The support is provided from local funds except that the salary of the nurse is furnished by the State. Non-State centers are organized and supported locally but receive literature, records, and help in organization from the State.

New permanent prenatal centers established—3 (1 State, 2 non-State). They were supported by local funds, though the State nurse served in the State center.

Group demonstrations—1,288 in five months. These were on infant care and were given by the State nurses.

Campaigns—2: (1) For immunization against diphtheria. (2) For examining preschool children and having their defects corrected before they entered school. In many towns such examinations were conducted in connection with May Day activities. Parent-teacher associations took up the work vigorously in the spring and summer so that it became almost state-wide.

The health car of the State department was sent through four counties in the summer of 1925 for the examination of preschool children and also as many younger children and infants as possible. Four physicians, 2 to 5 nurses, 2 dental hygienists, and a driver for the truck composed this itinerant staff. Assistance in organization and preparation in the communities was given by local committees.

Local agencies carried on the work started by the State in both the diphtheria immunization campaign and the preschool-examination campaign.

Literature prepared—a revision of the Pennsylvania Baby Book and a "graduation" certificate.

Literature distributed—219,787 pieces.

Exhibits conducted by the staff—4. Exhibit material has been lent eight times.

Infants born in the State in calendar year 1925—214,982; infants under 1 year of age reached through the work of the bureau during the year under review—22,550; preschool children reached—55,548; expectant mothers reached—16,666 (including those seen at the city-hospital prenatal clinics of Philadelphia).

Counties in the State—67; counties having maternity and infancy work during the year—43; counties having maternity and infancy work since the acceptance of the maternity and infancy act—67.

The outstanding features of the year's work were the operation of the health car in the summer months, the intercounty meetings of midwives, the promotion of toxin-antitoxin work, and the examination and correction of defects of preschool children who were to enter school in the fall.

## RHODE ISLAND

## Administrative agency:

State board of health, division of child welfare, Providence.

## Staff:

Director (physician), 7 nurses (1 part year), 1 stenographer, 1 field secretary.

## Activities:

Child-health conferences conducted by physicians—4; infants and preschool children registered—506; number examined—477. Defects found—790. Parents had 231 defects corrected.

Prenatal conferences conducted by physicians—6. These were conferences with groups of women at which prenatal advice was given but no examinations were made.

## Activities—Continued.

Home visits by nurses—36,446 (prenatal cases seen, 1,167; infants, 5,719; preschool children, 7,335). The home visits by nurses are a major feature of the State's program. Babies are visited once a month for three months, then every two months until they are 1 year of age, then every three months until they are 5 years of age. The visits also included investigations of 308 deaths and 115 stillbirths.

New permanent child-health center—1 established through the work of the division. It was supported by local and maternity and infancy funds.

Talks and lectures by staff—33.

Group demonstrations—4, on care of the infant and preparation for confinement.

A survey of neonatal deaths and stillbirths occurring in Woonsocket in 1925 was made in cooperation with the social-service department of Brown University. It was not completed within the fiscal year.

Literature prepared—folder on rickets.

Literature distributed—35,322 pieces.

Exhibits conducted by the staff—2, at county fairs. These included posters, maternity bed, portable bathtub, Chase doll, and films. A poster, Run-about's Daily Program, was prepared.

Breast feeding was promoted by having a prominent physician from Minnesota lecture on breast feeding before physicians and nurses.

Infants born in the State during the year—14,542; infants under 1 year of age reached through the work of the division—5,719; preschool children reached—7,335; expectant mothers reached—5,318.

Counties in the State—5; counties having maternity and infancy work during the year—4; counties having maternity and infancy work since the acceptance of the maternity and infancy act—4.

The outstanding achievement of the year was the reduction of the infant death rate. This is ascribed to the efforts of nurses in reaching mothers and children by systematic home visiting.

## SOUTH CAROLINA

## Administrative agency:

State board of health, bureau of child hygiene and public-health nursing, Columbia.

## Staff:

Director (nurse), 1 physician (part time), 16 nurses (11 part year), 1 vital-statistics clerk, 1 financial clerk, 1 stenographer, 1 milk technician (10½ months, part time), 1 motion-picture operator (9 months, part time), 1 mechanician (4 months). One county nurse was paid for full-time maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—204; infants and preschool children registered and examined—3,733. Defects found—2,495.

Approximately 1,000 children were reported as having defects corrected.

Prenatal conferences conducted by physicians—26; prenatal cases registered—129; number examined—10; visits to conferences—208.

Mothers' classes—3; mothers enrolled—120; lessons in course—20.

Midwives' classes—86; midwives enrolled—1,073; number carried over from previous year—121; number completing course—836; number still on roll—148; lessons in course—10. Improvement in the midwife situation has resulted from classes, revoking of certificates, and prosecutions. Physicians reported an improvement in the type of work of the midwives, but the matter of adequate supervision is the problem. A field nurse was assigned to every 11 counties to supervise the work of the midwives.

A nurse was employed by the bureau for three months to follow up cases of poliomyelitis and give instructions for their care as well as general instruction in infant care.

Home visits by nurses—2,267 (to prenatal cases, 552; postnatal cases, 373; infants and preschool children, 489; to physicians, registrars, and midwives, 853).

New permanent prenatal center—1 established as a result of maternity and infancy work. This was established at an industrial school for negro boys and girls conducted under church auspices. The church contributed to the support of the center. A physician made the examinations.

Talks and lectures by staff—142.



## Activities—Continued.

Community demonstrations—12. These were nursing demonstrations of maternity and infancy work in 12 counties, a nurse remaining in a county 3 to 5 months. Her activities included midwives' classes, mothers' classes, child-health conferences, and preparing for tonsil and adenoid clinics. In one county the nurse was continued on county funds. Two other counties were expecting to employ the nurses and continue the work.

Group demonstrations—480, on infant care and preparation for confinement, before midwives' classes, also before groups of farm women.

Literature distributed—45,440 (including Infant Care, 3,000; Prenatal Care, 1,500; The Baby, 500; The Expectant Mother, 500).

Exhibits conducted by staff—12. Exhibit material prepared—charts, posters, birth-registration exhibit. Exhibits were lent 46 times.

Nutrition work was carried on in one county by a nurse.

Local agencies that carried on maternity and infancy work not financed by the State and Federal funds: State parent-teacher associations aided in the work for the examination of preschool children, and a county federation of women's clubs financed the examination of 700 infants and preschool children. A hospital in Charleston gave field obstetrical service in connection with the county health work. County, mill, and community nurses made 13,771 visits (to prenatal cases, 2,869; postnatal, 7,825; to infants and preschool children, 3,077). They conducted 18 mothers' classes with an enrollment of 360 mothers, also 12 little mothers' classes with 181 girls enrolled.

A negro nurse was paid through the bureau of child hygiene by a fund given by a wealthy resident of Charleston. She worked in Charleston County from March 1. Her reports for four months showed 453 visits (to prenatal cases, 120; postnatal cases, 197; infants, 65; preschool children, 71). She conducted a midwife class with an enrollment of 24 and a mothers' class with an enrollment of 18. She assisted in the development of a venereal-disease clinic for negro girls at the county health department, succeeded in getting infected prenatal cases to take neosalvarsan, and sent a number of negro boys to the venereal-disease clinic at Roper Hospital.

Campaign—1, on birth registration. The State is not in the birth-registration area. The United States Census Bureau test had shown that only 86 per cent of the babies were registered, and the State was dropped from the registration area in 1925. A special campaign was put on for November and December of 1925, and in an effort to bring up the registration a nurse was assigned to the parts of the State where the reporting was most lax. The nurse called the midwives together and also spoke before county medical societies, women's groups, churches, schools, and public meetings. She interviewed registrars, physicians, and others.

Nurses were given training in maternity and infancy work through four months' service with the field nurses at a salary of \$50 a month.

Infants born in the State July 1, 1925, to May 1, 1926—38,163; infants and preschool children reached through the work of the bureau during the year under review—27,493; expectant mothers reached—6,481.

Counties in the State—46; counties having maternity and infancy work during the year—37; counties having maternity and infancy work since the acceptance of the maternity and infancy act—44; counties that have taken over the maternity and infancy work—5.

The outstanding feature of the year's work was the teaching of midwives.

## SOUTH DAKOTA

## Administrative agency:

State board of health, division of child hygiene, Waubay.

## Staff:

Director (physician), 1 physician (four months), 3 nurses (1 one month), 1 stenographer, 1 lecturer (part time). Three county units received maternity and infancy funds for 3 physicians (part time) and 7 nurses (all part time, 3 part year).

Volunteer assistants—2 physicians.

## Activities:

Child-health conferences conducted by physicians—168; examinations of infants and preschool children—2,357.



## Activities—Continued.

Combined prenatal and child-health itinerant conferences conducted by physician—20; prenatal cases registered and examined—27; infants and preschool children registered and examined—431.

Defects found—2,377. No complete report of number of corrections was available, but interest of parents indicated a good percentage of corrections.

Prenatal conferences—8; prenatal cases registered and examined—13. These conferences were conducted by physicians in the full-time county units.

Mothers' classes—46; mothers enrolled—1,021; number completing course—864 (in 37 courses; 9 courses had an enrollment of 157, and these names were still on the roll July 1, 1926); lessons in course—6 to 8.

Home visits—1,044 (to prenatal cases, 174; obstetrical cases, 5; postnatal cases, 42; infants and preschool children, 823).

Maternity homes inspected—99; inspections made—127.

Surveys—2: (1) Maternity homes and maternity departments of hospitals. This followed the enactment of a law giving the health department power to license maternity homes and hospitals. Of the 130 maternity homes and maternity departments of hospitals reported in the survey, 20 were reported as no longer in operation, 95 were licensed, and 4 were denied licenses. The others were still pending. During the year 3,009 patients were delivered in the maternity department of general hospitals in the State and 363 in maternity homes. (2) Attendants at births of babies during the calendar years 1924 and 1925.

Talks and lectures by staff—175.

Group demonstrations—37, in connection with the mothers' classes.

Literature prepared—outline for mothers' classes.

Literature distributed—approximately 26,500 pieces (including Mothers' Book, 1,700; Government bulletins, 9,500).

New names registered for prenatal letters—634.

Exhibits conducted by staff—13. Exhibit material was lent 16 times.

May Day activities were carried on by State and local organizations, which conformed to plans of the division.

The State is not in the birth-registration area. All members of the staff urged birth registration so that the United States Census Bureau test will be satisfactory when it is made. It will be necessary for the legislature to enact the model law before a test can be made.

Breast feeding was urged in prenatal letters, at classes, and at conferences.

Infants born in the State July 1, 1925, to June 1, 1926—13,651; infants reached through the work of the division during the year under review (including infants whose mothers received Mothers' Books)—14,702; preschool children reached—2,121; expectant mothers reached (through prenatal letters, conferences, and visits)—813. (A copy of the Mothers' Book was sent to the parents of every child whose birth was registered.)

Counties in the State—64 organized, 5 unorganized (largely of Indian population; the Indians are under Government care); counties having maternity and infancy work during the year—44; counties having maternity and infancy act—62 organized, 2 unorganized; county that has taken over the maternity and infancy work—1.

The outstanding achievements of the year were helping to secure an epidemiologist, which could not have been done without the assistance of the bureau, and obtaining the continuation of support of the State medical association for the division of child hygiene, also the appointment of the director of the division as chairman of the child-welfare committee of the association.

## TENNESSEE

## Administrative agency:

State department of public health, division of child hygiene and public-health nursing, Nashville.

## Staff:

Director (physician), 2 physicians (part year, part time); 2 nurses (part time, part year), 7 vital-statistics clerks (all part time, 6 part year), 1 stenographer (part time). Thirty-one county nurses were paid for some maternity and infancy work.

Volunteer assistants—4 physicians, 31 nurses, 8 lay persons.

## Activities:

Child-health conferences conducted by physicians—369; infants registered and examined—2,159. Defects found—1,022. Parents had defects in 227 children corrected.

Mothers' classes—64; mothers enrolled—389; lessons in course—15.

Midwives' classes—73, conducted by staff physician; midwives enrolled and completing course—356; lessons in course—10. Improvement in the midwife situation has been marked in sections where classes were conducted. Improvement in birth registration, cleanliness, use of nitrate of silver, and doing away with superstitions have all been noted. The most incompetent midwives have been eliminated. The midwives were referring their cases to physicians for prenatal care.

Home visits by nurses—13,743, to 6,062 cases (prenatal, 1,127; obstetrical, 328; postnatal, 562; infants, 3,256; preschool children, 789).

Maternity homes inspected—3; inspections made—4.

Infant home inspected—1; inspection made—1.

Talks and lectures by staff members—125, including 6 by radio.

Instructive group meetings—60.

Campaigns conducted—3: (1) May Day (child-health day). Literature on child health was distributed, and suggestions for parades, floats, games, songs, and dances were also sent to the chairmen appointed in 21 counties. (2) Birth registration has been an intensive campaign in the State since February 1, 1926. The division gave much time to this campaign. Visits were made to registrars, physicians, midwives, and undertakers in the effort to secure records, and talks were given to groups. (3) Instruction of midwives, as about 13 per cent of all births outside the larger cities in the State are attended by midwives.

Surveys—2, of midwives in the State, and of birth registration in 41 counties.

Literature prepared—diet lists 1 month to 5 years, prenatal letters, record form for well-baby conferences, nurses' prenatal-case cards, nurses' infant and preschool cards, midwife instruction, Plan of Work for Nurses and Standing Orders, Plan of Organization of Well-Baby Conferences.

Literature distributed—17,318 pieces.

New names registered for prenatal letters—53; prenatal letters distributed—403 sets.

Exhibits conducted by staff—5. Three of these were exhibits at fairs.

One was before the State medical association, at which were shown posters, literature, midwife bag equipped, chart on regularity of feeding the baby, graphs on infant and maternal mortality, sand tables showing sanitation for primitive country home, and graphic presentation of proper diet in pregnancy. One exhibit at the Mountain Workers' Conference showed a sanitary home and surroundings. Two Girl Scouts gave a demonstration of bathing the baby. Exhibit material prepared—films, posters, midwife bag equipped, obstetrical mannikin, baby tray, baby pen, layette, Chase doll. Exhibits were lent eight times.

Scientific article prepared—"The question of an adequate supply of rural physicians in Tennessee based on a statistical study of relative numbers and ages of urban and rural physicians for a 20-year period."

Statistical study—1, relating to infant and maternal mortality.

Supervision was given to local organizations by the supervisor and assistant supervisor nurses. Local agencies carried on May Day activities, which were initiated by the division.

The State is not in the birth-registration area. Every effort was made to have physicians and midwives return their records in order that the State may pass the United States Census Bureau test in the near future.

Breast feeding was stressed in the advice given to prenatal and postnatal patients.

Training of public-health nurses in maternity and infancy work included having them take the course for public-health nurses at Peabody College.

Infants born in the State in calendar year 1925—52,097; infants and preschool children reached through the work of the division during the year under review—8,853 (1,500 by literature); expectant mothers reached—2,819.

## Activities—Continued.

Counties in the State—95; counties having maternity and infancy work during the year—41; counties having maternity and infancy work since the acceptance of the maternity and infancy act—45.

The outstanding work of the year has been that to stimulate birth registration.

## TEXAS

## Administrative agency:

State board of health, bureau of child hygiene, Austin.

## Staff:

Director (physician), 3 nurses (1 part time, 1 part year), 1 supervisor of maternity and infant homes, 4 stenographers, 1 filing clerk, 2 mailing clerks (part time), 1 secretary, 1 illustrator (part time), 1 publicity writer (part time, part year). Thirty-one county nurses were paid for some maternity and infancy work.

Volunteer assistants—649 physicians, 2,299 lay persons.

## Activities:

Child-health conferences conducted by physicians—576; infants and pre-school children registered and examined—4,929. Defects found—2,610. Parents had defects corrected in 880 children.

Prenatal conferences conducted by physicians—83; expectant mothers attending conferences—1,092; number examined by physicians—401.

Little mothers' classes—283; girls enrolled—4,042; number completing course—379; lessons in course—12.

Mothers' classes—136; mothers enrolled—1,045; number completing course—354; lessons in course—12.

Midwives' classes—62; midwives enrolled—590; number completing course—162; lessons in course—10. Improvement in the midwife situation has resulted from the organization of classes.

Dental conferences conducted by dentists—4; preschool children receiving dental advice—224.

Home visits by nurses—8,825 (prenatal cases seen, 1,092; postnatal cases, 309; infants, 1,240; preschool children, 1,097).

New permanent child-health centers—135 established as a result of the maternity and infancy work by nurses who return to them regularly to hold conferences. They were supported by county nursing funds.

New permanent prenatal centers—13 established as a result of maternity and infancy work. These were maintained in the same way as the child-health centers.

Maternity homes inspected—113; inspections made—255.

Infant homes inspected—140; inspections made—1,400.

Talks and lectures by staff—138.

Group demonstrations—1,007.

Campaigns—4: (1) Birth registration. (2) Get ready for school. (3) Dental inspection. (4) Vaccination against smallpox and typhoid fever.

Literature prepared—Care of the Teeth, revised.

Literature distributed—77,797 pieces.

New names registered for prenatal letters—3,597.

Surveys—2, county-wide, of midwives.

Exhibits conducted by staff—4. Exhibit material prepared—posters and material to illustrate talks. Exhibit material was lent twice. Health railroad and posters were shown at a tricounty fair. A demonstration of posters, lactic-acid milk, and care of milk was given before the State medical association. At the State nurses' convention an exhibit of posters and literature was conducted. The State bureau also assisted the United States Children's Bureau with an exhibit at the American Medical Association meeting.

Nutrition work was conducted through 41 classes.

County nursing service has increased as a result of the work of the staff in approaching commissioners' courts, speaking at mass meetings of citizens, and developing the sentiment for the service in other ways.

The State is not in the birth-registration area. A pamphlet has been published in the interest of getting into the area. The bureau sent letters to mothers of all babies whose births were registered.

Breast feeding was stressed in literature and in the classes.



## Activities—Continued.

Training for nurses in maternity and infancy work included three months' experience in a county with a nurse whose work was well organized, a required course of reading, and a correspondence course.

Infants born in the State during the year—86,937; infants under 1 year of age reached through the work of the bureau—49,908; preschool children reached—1,097; expectant mothers reached—5,375.

Counties in the State—254; counties having maternity and infancy work during the year—32; counties having maternity and infancy work since the acceptance of the maternity and infancy act—81.

The outstanding achievement of the year was the increasing demand for county nurses. Many counties asked commissioners' courts for financial aid to establish permanent nursing services.

## UTAH

## Administrative agency:

State board of health, bureau of child hygiene, Salt Lake City.

## Staff:

Director (physician), 1 physician (part time, part year), 2 nurses (1 part year), 1 vital-statistics clerk, 1 stenographer. Three physicians and 3 county nurses were paid for some maternity and infancy work in three counties.

Volunteer assistants—462 lay persons.

## Activities:

Combined prenatal and child-health conferences conducted by physicians—341; infants and preschool children registered—4,986; prenatal cases registered—99; visits to conferences by expectant mothers—105; examinations of infants and preschool children—8,599. Defects found—11,681. Parents had 1,511 corrections of defects made as a result of the conference work.

Dental clinics were held in one county, resulting in much repair work.

Mothers' classes—75 meetings; attendance—2,102.

Home visits—3,353 (prenatal cases seen, 32; obstetrical case, 1; postnatal cases, 6; infants and preschool children, 3,901).

New permanent combined prenatal and child-health centers—19 established as a result of maternity and infancy work. The centers were supported by local communities, but physicians and nurses were supplied from headquarters staff and county-unit staffs.

Maternity homes inspected—3.

Talks and lectures by staff—202, including 3 by radio.

Community demonstrations—3. County nursing demonstrations were made at three points in the State in an effort to secure permanent nursing service in the counties. One demonstration was to be followed by a full-time health unit in two adjacent counties in September, 1926.

Group demonstrations—10.

Campaigns—2: (1) Goiter prevention. (2) Diphtheria immunization.

Literature distributed—24,241 pieces (Child Care, 2,939; Infant Care, 2,813; Prenatal Care, 2,801; Save the Babies, 14,301; miscellaneous, 1,387).

Exhibits conducted by staff—3. Exhibit material was lent 16 times. An exhibit at the State fair consisted of dolls representing the physicians, nurses, and children at a toxin-antitoxin clinic. Exhibits were also sent to county fairs.

Infants born in the State during the year—14,000; infants under 1 year of age reached through the work of the bureau—14,000 (by literature); infants and preschool children reached by nurses and in conferences—approximately 6,000; expectant mothers reached in conferences and by literature—2,600.

Counties in the State—29; counties having maternity and infancy work during the year—27; counties having maternity and infancy work since the acceptance of the maternity and infancy act—28.

The outstanding achievements of the year were the 8,599 physical examinations of preschool children, with the follow-up work in securing correction of the defects found, and the goiter-prevention and diphtheria immunization campaigns.



## VERMONT

## Administrative agency:

State department of health, Burlington.

## Staff:

Director (physician, State health officer serving), 1 nurse, 1 stenographer.

## Activities:

Child-health conferences conducted by physicians—19; infants and preschool children registered at conferences—238; number examined—231; visits to conferences—238. Defects found—227.

Mothers' classes—2; mothers attending—88; lessons in course—9.

Home visits by nurses—315 (to prenatal cases, 25; postnatal cases, 18; infants, 68; preschool children, 204).

Talks and lectures by staff—28.

Community demonstration—1.

Literature distributed—2,620 pieces (Child Care, 910; Infant Care, 87; Prenatal Care, 883).

Statistical study—1.

Infants born in the State in calendar year 1925—7,497; infants under 1 year reached through the work of the bureau during the year under review—2,943; preschool children reached—1,150. These figures include the infants and children reached by letters, birth certificates, and literature.

Counties in the State—14; counties having maternity and infancy work during the year—5; counties having maternity and infancy work since the acceptance of the maternity and infancy act (February, 1925)—5.

The outstanding feature of the work of the year was that the whole program was a demonstration of maternity and infancy work in northeastern Vermont. The area selected was 263 square miles, with a population of 5,746 people and approximately 90 births each year.

## VIRGINIA

## Administrative agency:

State board of health, bureau of child welfare, Richmond.

## Staff:

Director (physician), 1 physician, 3 nurses (including midwife inspector, part year), 1 dentist (part year), 2 clerks, 5 stenographers, 1 director of correspondence course for mothers. Thirty-eight county nurses and 50 city or town nurses were paid for some maternity and infancy work.

Volunteer assistant—1 lay person.

## Activities:

Child-health conferences conducted by physicians—164; infants and preschool children registered and examined—2,780. Defects found—4,526.

Conferences conducted by nurses, no physician present—874; children inspected—3,492; mothers instructed in prenatal care—26; visits to conferences—4,153 (by expectant mothers, 31; by children, 4,122).

Little mothers' classes—4; girls enrolled—12.

Mothers' classes—3; mothers enrolled—65; number completing course—25; number still on roll—40; lessons in course—12.

Midwives' classes—45; midwives enrolled—1,845; number completing course—20; number still on roll—1,651; lessons in course—8. The midwives are decreasing as a result of the midwives' classes, the requirements and restrictions imposed, and the annual renewal of permits. Ten counties at the beginning of instruction had 1,845 midwives. At the end of the year under review they had 1,651, a decrease of 194. Those practicing know something of prenatal care and give their patients advice as to diet and elimination.

Dental conferences conducted by dentists—68; expectant mothers receiving dental advice—2; preschool children receiving dental advice—247.

Home visits by nurses—58,433 (to prenatal cases, 4,353; obstetrical cases, 345; postnatal cases, 6,769; infants, 31,564; preschool children, 15,402).

New permanent combined prenatal and child-health center—1 established as a result of the maternity and infancy work of the bureau. It was supported by State and local funds.

New permanent child-health centers—11 established as a result of the maternity and infancy work of the bureau. They were supported by combined funds from the State, private subscriptions, and county boards. The total number of health centers in the State was 26.

## Activities—Continued.

Maternity homes inspected—6; inspections made—6.

Talks and lectures by staff—135.

Group demonstrations—10. Three of these were better-baby contests; the other 7 were in connection with the correspondence course for mothers usually given as a preliminary to enrollment of a class for the course.

Literature prepared—Five Point Bulletin, The Baby, diet slips, Home Nursing (revised).

Literature distributed—73,640 pieces.

Correspondence course for mothers—enrollment—1,050; number carried over from previous year—728; number completing course—394; number still on roll—593; lessons in course—12. Papers were corrected and returned to those taking the course.

A feature of the year's work was the institute for doctors' helpers. Two were conducted in the State. Each course was for a period of five days of five-hour classes each day. The course included: Home nursing, maternity and infancy care, personal hygiene, and community health. The enrollment of women for one course was 24, for the other course 35. Requests have been made by two other communities for institutes. The purpose of the institute was to train women in rural localities to give intelligent assistance to physicians in times of need, particularly with confinement cases. Parents' institutes were conducted on request in five communities.

Infants born in the State during the year—59,524; infants under 1 year of age and preschool children reached by the work of the bureau—50,000.

All the 100 counties in the State had maternity and infancy work during the year. All have had the work since the acceptance of the maternity and infancy act.

The outstanding work of the year was with the children who expected to enter school for the first time in the fall. This was done through the child-health conferences conducted by the clinicians of the bureau. The conferences which have been held previously have been mostly for babies, but in the year under review the preschool children were given special attention. The greatest emphasis was placed upon the education of the mother of the preschool child. Vaccination against smallpox and immunization against diphtheria were urged wherever opportunity offered. The nurses made special efforts to influence the mothers to have all the defects of the preschool children corrected.

## WASHINGTON

## Administrative agency:

State department of health, division of child hygiene, Seattle.

## Staff:

Director (physician, part year), 1 nurse, 1 vital-statistics clerk, 1 clerk (part time), 1 accountant (part time). Pediatricians were paid by the day for examinations at conferences, and 1 county nurse was paid for some maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—50; children examined—3,526. These conferences were conducted by pediatric specialists in different parts of the State. The conferences were held in remote and isolated communities in 21 different counties. The child-welfare committee of the State medical society actively cooperated in the work. Parents had about 50 per cent of the defects found corrected. In addition to the examinations of children made in the itinerant conferences, 300 children were examined at the Washington fair. A weekly baby clinic was held in one of the department stores of Seattle with a registration of 1,348 babies and 3,404 examinations at the 34 conferences. The total number of conferences therefore was 87, the number of visits made was 7,230, and the number of children examined was 5,174.

Mothers' classes—20.

Talks and lectures by staff—79, including 14 by radio.

Literature distributed—approximately 6,500 pieces.

Correspondence course for mothers—enrollment—133; lessons in course—15. Papers were corrected and returned to those taking the course.

Infants born in the State from June 30, 1925, to June 1, 1926—22,227; infants under 1 year of age and preschool children reached by maternity

## Activities—Continued.

and infancy work during the year under review—5,519; expectant mothers reached—approximately 1,000.

Counties in the State—39; counties having maternity and infancy work during the year—21; counties having maternity and infancy work since the acceptance of the maternity and infancy act—27.

The outstanding achievement during the year was progress made in establishing cooperative relations with lay and medical groups throughout the State. The chairman of the child-welfare committee of the State medical society, formerly a member of the staff, conducted child-health conferences. He had attended the State directors' conference and he reported on it to various lay and professional groups in the State.

## WEST VIRGINIA

## Administrative agency:

State department of health, division of child hygiene and public-health nursing, Charleston.

## Staff:

Director (nurse), 4 nurses (1 part time, 3 part year), 1 vital-statistics clerk, 1 clerk, 1 stenographer, 1 vital-statistics field worker. One city nurse and 10 county nurses were paid for some maternity and infancy work.

## Activities:

Child-health conferences conducted by physicians—306; infants and pre-school children registered—2,759; number examined—2,330; visits to conferences—3,577. Defects found—1,578.

Prenatal conferences conducted by physicians—34; prenatal cases registered—46.

Conferences conducted by nurses, no physician present—26; children inspected—278; mothers, instructed in prenatal care—13; visits to conferences—346 (by expectant mothers, 13; by children, 333).

Little mothers' classes—46; girls enrolled—785; number completing course—521; lessons in course—8 to 24.

Mothers' classes—20; mothers enrolled—582; number carried over from previous year—5; number completing course—85; number still on roll—458; lessons in course—4 to 24.

Dental advice was given at child-health conferences.

Home visits by nurses—12,620 (prenatal cases seen, 1,738; postnatal cases, 337; infants, 1,459; preschool children, 4,756).

New permanent child-health centers—12 established as a result of the work under the maternity and infancy act. They were supported by combined city, county, and State funds.

Talks and lectures by staff—425.

Group demonstrations—324, before classes of girls and women who were instructed in child care.

Campaigns conducted—3: (1) State-wide campaign to have children enter school without defects. (2) Educational campaigns for better sanitation, important in reducing infant mortality.

Surveys—3: (1) Of midwives in 8 counties, to be followed by instruction and supervision of midwives. (2) Detail of a field worker to work on birth registration (this is in effect a continuous survey). (3) In 13 communities, conditions affecting child health.

The midwife situation has shown some improvement as a result of the survey. Permits were issued to 372 midwives during the year.

Literature prepared—Big Sister League class outline. Outline for Home Nursing Lessons for Farm Women's Clubs, Talks with Parents on the Health of the Runabout Child, revised monthly report forms, revised diet cards, revised prenatal letters, motherhood correspondence course.

Literature distributed—85,355 pieces.

New names registered for prenatal letters—1,334; prenatal letters distributed—1,105 sets.

Correspondence course for mothers—enrollment—2,861; number carried over from previous year—4,656; number completing course—1,063; number still on roll—4,605. The number enrolling for the correspondence course is increasing. Many physicians are sending in enrollment cards for their patients as a routine procedure. To determine the value of the course a questionnaire was sent to all women enrolled. Seven days were allowed for its return and 351 replies were received. It was found that



## Activities—Continued.

251 mothers received physicians' care during pregnancy and 354 babies were born to 351 mothers; that 306 of these babies were fed regularly and 252 were breast fed five months or more.

Exhibits conducted by staff—19. Exhibit material prepared—graphs showing results of the correspondence course, posters on maternal and child care, model room for child, model ice box, demonstration material used in instruction classes, food exhibits.

Scientific articles were prepared for the department of health bulletin and other journals.

Nutrition work is a part of the general program and was included in the general instruction work.

Advisory service was given to all local organizations by the field advisory staff.

The State was admitted to the birth-registration area in 1925. In order to retain that position the division has assisted the vital-statistics division by assigning one clerk and one field worker to the birth-registration work.

Breast feeding was emphasized in the correspondence course for mothers, child-health conferences, home visits, group teaching, special correspondence, and by distribution of a leaflet on breast feeding.

Public-health nurses were trained in maternity and infancy work through advisory visits. Special plans were being made for bringing home the importance of the maternity and infancy work to both physicians and nurses through emphasis on maternal and preschool care in the general public-health programs of the county units.

Infants born in the State June 1, 1925, to June 30, 1926—42,881 (birth records for the last six months not quite complete); infants and preschool children reached through the work of the division during the year under review—9,252; expectant mothers reached—3,131.

Counties in the State—55; counties having maternity and infancy work during the year—48; counties having maternity and infancy work since the acceptance of the maternity and infancy act—50; counties that have taken over the work—3.

The outstanding achievement of the year was the strengthening of the public opinion in favor of the promotion of maternal and infant health.

## WISCONSIN

## Administrative agency:

State board of health, bureau of child welfare, Madison.

## Staff:

Director (physician), 4 physicians (2 part time), 6 nurses (2 part time), 5 vital-statistics clerks, 1 bookkeeper and filing clerk, 2 stenographers, 2 laboratory assistants (2 months, part time), 1 chauffeur.

Volunteer assistants—32 physicians, 97 county and industrial nurses, a number of dentists, and 126 lay persons.

## Activities:

Combined prenatal and child-health conferences conducted by physicians—396; prenatal cases registered and examined—180; infants and preschool children registered and examined—7,736; visits to conferences—10,990 (by expectant mothers, 290; by infants and preschool children, 10,700). Defects found—13,116. Parents had defects corrected in approximately one-fifth of the children examined.

Mothers' classes—6; mothers enrolled—90; lessons in course—10.

Home visits—1,027 (to prenatal cases, 56; postnatal cases, 39; infants, 664; preschool children, 824).

New permanent combined prenatal and child-health centers—11 established under the State maternity and infancy work. The communities supported the centers, 7 paying a staff physician to conduct conferences, 4 paying local physicians.

Talks and lectures by staff—482.

Group demonstrations—233, including 199 given in schools in training teachers to present courses in infant hygiene. Demonstrations on various phases of infant care also were given before women's groups and at prenatal conferences.

Literature prepared—Six Years' Summary of Child Health Work in Wisconsin, Care of the Teeth, revised prenatal letters, monthly bulletin, and record blanks.



## Activities—Continued.

Literature distributed—156,334 pieces.

New names registered for prenatal letters—2,278; prenatal letters distributed—2,635 sets.

Exhibits conducted by staff—8. Exhibit material prepared—layettes, 2 films for child-welfare special. Exhibit material was lent 289 times.

Scientific articles prepared—4.

Training for public-health nurses was given through lectures by the staff in the public-health training classes in Milwaukee Training School, through advisory nursing service, and through round tables at the annual nurses' conference, all dealing with maternity and infancy work.

Infants born in the State during the year—49,757; infants under 1 year of age reached through the work of the bureau—49,757; preschool children reached—5,458; expectant mothers reached (by conferences and prenatal letters)—2,514.

Counties in the State—71; counties having maternity and infancy work during the year—68; counties having maternity and infancy work since the acceptance of the maternity and infancy act—71; counties that have taken over the maternity and infancy work—15.

The outstanding achievements of the year were having the local communities assume the support of centers, extending maternity and infancy work to the northwestern and mid-western part of the State, and increasing the use of prenatal letters and literature by physicians.

## WYOMING

## Administrative agency:

State department of public health, division of maternal and infant welfare and child hygiene, Cheyenne.

## Staff:

Acting director (physician, State health officer serving), 1 nurse (part year), 1 vital-statistics clerk. Five county nurses were paid for some maternity and infancy work.

Volunteer assistants—33 physicians, 19 dentists, 62 nurses, 77 lay persons.

## Activities:

Child-health conferences conducted by physicians—96; infants and preschool children registered—1,741; number examined—1,711. Defects found—1,846. Parents had defects corrected in 138 children.

Prenatal conferences conducted by nurses, no physician present—148; mothers instructed in prenatal care—979.

Dental clinics—71; preschool children receiving dental advice—1,395.

Home visits by nurses—9,126, including 1,211 follow-up visits (prenatal cases seen, 1,436; infants, 3,145; preschool children, 3,334).

Talks and lectures by staff—29, including 1 by radio.

Group demonstrations—65, relating to prenatal and natal care as well as to infant care. These were given by the nurses before groups of mothers and at the State fair.

Campaigns—2: (1) Breast feeding, which is emphasized by the health officer in all his addresses to mothers on maternal and infant care. (2) Diphtheria immunization.

Surveys—4: (1) The hospitals in the State. (2) Midwives, in part of the State. (3) Birth registration, in part of the State. (4) Goiter in children (state-wide, not completed).

Literature distributed—approximately 7,000 pieces.

A graduate course for physicians in pediatrics was conducted. (The services of a specialist in pediatrics were procured to address the Laramie County Medical Society.)

Infants born in the State, July 1, 1925, to June 1, 1926—4,066; infants under 1 year of age reached through the work of the division during the year under review—6,241; preschool children reached—4,075; expectant mothers reached—4,915. (This includes infants receiving birth certificates, and infants and children seen at conferences and in nursing visits, and those reached by literature.)

All the 23 counties in the State had maternity and infancy work during the year.

The outstanding work of the year was the education of mothers in the vital need of good prenatal and natal care and the necessity for breast feeding of their infants.

## FEDERAL ADMINISTRATION

### FEDERAL STAFF

The maternity and infant-hygiene division of the United States Children's Bureau was created to assist in the administration of the maternity and infancy funds. It is one of the six major divisions of the bureau. The Federal overhead has been kept at a minimum. Only 9 persons—4 physicians, 2 nurses, an auditor, and 2 clerical workers—have been regularly employed in the maternity and infant-hygiene division.<sup>1</sup> The physicians on the staff included (1) the director, who was the executive officer of the division and also acted as a consultant with State directors in the field; (2) an associate physician whose duties included research, answering of special correspondence, and preparation of literature and a news-letter; (3) a physician who has been assigned to special studies and field work; and (4) a negro physician, who was an instructor of negro midwives. One consulting public-health nurse has been continually in the field, advising and assisting in the State programs and often helping to initiate a piece of work in a State. The second public-health nurse has been detailed to different States for demonstration work. The auditor has visited each State to audit the accounts of cooperating State agencies. The regular office staff has consisted of a clerk and a stenographer. From time to time additional persons are employed as needs arise. Two part-time consultants in child hygiene gave occasional service in the field, one assisting for a few weeks in Nevada, the other for a few days in Louisiana and in Georgia. A part-time consultant in obstetrics was added to the staff, and arrangements were made for this physician to work in one of the States in the late summer.

### CONFERENCE OF STATE DIRECTORS

The third annual conference of directors of State bureaus administering the Federal maternity and infancy act was held at the Children's Bureau in Washington, January 11, 12, and 13, 1926. It was attended by representatives from 41 of the 43 States cooperating under the act and of 3 of the States not cooperating under the act; thus 44 of the 48 States were represented. The subject discussed were: A practical State program of prenatal care, vital statistics and statistical studies in relation to maternity and infancy work, the infant and preschool child, education of public opinion in the hygiene of maternity and infancy, class work, and administrative problems. The development, scope, and extent of the maternity and infancy work in the States were clearly shown through the discussions participated in by the State bureau directors. Prominent obstetricians, pediatricians, nutritionists, and nurses took part in the formal program and in the discussions. The papers read have been printed in various journals and form part of the conference pro-

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<sup>1</sup> See 42 Stat. 224, secs. 3-6 (Appendix A, pp. 85-86, of this report).

ceedings, which have been published by the Children's Bureau. A limited number of copies are available for distribution, as are reprints of several of the papers read. (See pp. 93-94.)

At the request of the conference, two committees were appointed by the Chief of the Children's Bureau—one to consider a cost-accounting scheme, with special reference to the unit cost of separate items of work, and the other to investigate methods of determining time spent in maternity and infancy work by local agencies (county or city) matching funds as a part of the State program. These committees were requested to report their findings at the 1927 conference.

### BIRTH REGISTRATION

The Children's Bureau cooperated with the national committee for the promotion of the extension of the birth and death registration areas. The director of the maternity and infant-hygiene division served as a member of the committee. Plans were made during the year under review to assist the State of Idaho by detailing a person from the Children's Bureau in the summer to assist in promoting the registration of births. Plans were also made to assist South Carolina in a similar manner in the late fall. Arkansas was able to match maternity and infancy funds with State funds to help carry on its birth-registration campaign. The negro physician on the staff of the maternity and infant-hygiene division gave assistance in Tennessee in starting birth-registration work among the negro midwives. Her work in Georgia included stimulation of reporting of births by the negro midwives. Assistance was given in New Mexico through a nurse detailed from the Children's Bureau to work with the Mexican midwives. All the field staff of the maternity and infant-hygiene division reported on the status of birth registration in the States they visited that were not in the area. They were also able to help the States in working out some details necessary to pass the tests of the United States Bureau of the Census.

### SPECIAL ASSISTANCE TO STATES

#### CHILD-HEALTH CONFERENCES

At the request of the respective State departments of health, assistance was given in North Dakota, Kentucky, North Carolina, and Oregon in child health conference work. This assistance consisted of the services of a physician, or a physician and a nurse, who spent a few days to two months in a State. In North Dakota, Oregon, and Kentucky the work consisted entirely of itinerant conferences in rural communities. In North Carolina a series of conferences were held in the county seat of one county under the auspices of the county health department. A physician from the Children's Bureau and one from the State board of health conducted the examinations for four days, during which time 370 children were examined.

#### MIDWIFE EDUCATION

During the year assistance was given to New Mexico, Tennessee, and Georgia in the work among the midwives of those States. The work in New Mexico, begun in February, 1925, was completed in



December of that year. It covered five counties. Classes for midwives were held in various sections of these counties in the effort to reach every midwife. Owing to the scattered population, it was generally necessary to visit the midwives individually in organizing the classes and this made the progress of the work very slow. In some of the villages the classes consisted of only three or four persons. By the end of the demonstration 367 visits had been made to midwives in their homes, 301 classes had been conducted, and 135 midwives had completed the course and been granted certificates. In addition to the midwives 346 women not practicing midwifery took the course so that they might learn the essentials of maternity hygiene, and 331 other persons attended a few of the classes and demonstrations.

In the spring of 1926 the Tennessee division of child hygiene and public-health nursing employed a negro woman physician to continue work among the negro midwives begun by the negro physician detailed from the Children's Bureau, and at the division's request the Children's Bureau again detailed this staff physician to the State for a month to assist the State's physician in initiating her work.

For seven months of the year under review the negro woman physician on the bureau's staff has been detailed to Georgia for work among the negro midwives of that State.

#### PRESCHOOL CAMPAIGN IN NEBRASKA

A staff nurse was detailed to Nebraska for five months to assist in the state-wide campaign for the examination of children of preschool age. Fifty-four conferences were arranged in 34 counties, at which 1,971 preschool children were examined. One hundred and forty-seven physicians and 67 dentists assisted with the conferences. Of the 1,971 children examined only 177 were found free from defects.

Local parent-teacher associations assisted in 26 conferences, 49 individual associations taking part. American Red Cross chapters helped in 20 conferences, local women's clubs in 11 conferences, and one Woman's Christian Temperance Union and one American Legion post each assumed responsibility for one conference in their respective communities. Often more than one association assisted with a conference.

#### MATERNITY AND INFANCY PUBLIC HEALTH NURSING DEMONSTRATION IN UTAH

A demonstration of a county maternity and infancy nursing service was begun on March 20, 1925, at the request of the State health department, in three counties of southern Utah, namely, Piute, Garfield, and Kane Counties, and was terminated November 15, 1925. A nurse from the Children's Bureau was assigned to the work. The object of the demonstration was to show the value of maternity and infancy nursing. The program included: (1) Mothers' classes in infant and child care (64 were held with an attendance of 1,948), care of the mother before and after childbirth, and prevention and care of communicable diseases. (2) Cooperation in the child-health and prenatal conferences held by the State bureau. Fifteen such conferences were held at which there was an attendance of 692 preschool children and 26 expectant mothers. (3) Home visits by the



nurse followed the conferences. Many other visits and demonstrations in the homes were made. (4) Eight toxin-antitoxin clinics were arranged with an attendance of 706. (5) A campaign for the use of iodized salt as a preventive of goiter resulted in the use of iodized salt exclusively in one of the towns and in introducing this product into every town in the territory. (6) A campaign for the use of vegetables and fruit in the daily diet resulted in larger and more diversified gardens. (7) A health center and rest room at a county fair was used by the workers to distribute 817 pieces of literature, and information was given in relation to nutrition and child care. At this fair 394 children were weighed and measured. (8) Conferences were conducted in different towns.

Advice was given to 1,605 individuals at home and in conference. Various phases of maternity and infancy care were shown in 78 demonstrations.

## RESEARCH AND PUBLICATIONS

### STANDARDS FOR PHYSICIANS CONDUCTING CONFERENCES IN CHILD-HEALTH CENTERS

A request was made at the second conference of State bureau directors that the Children's Bureau appoint a committee to formulate standards for the conducting of child-health conferences. The standards were prepared by the standing pediatric advisory committee of the Children's Bureau (which consists of representatives from the American Pediatric Society, the pediatric section of the American Medical Association, and the American Child Health Association) cooperating with the director of the child-hygiene division of the bureau. Assistance was also given in the formulation of these standards by professors of pediatrics in two universities and the director of one of the State bureaus. Copies of printers' proofs were available for the annual conference held in January, 1926, and the standards were examined and discussed at one of the sessions. The bulletin was issued within the year under review, and more than 100,000 copies were distributed to the States for further distribution among local physicians and centers.

### STANDARDS OF PRENATAL CARE

At the second State bureau directors' conference a request was also made that a committee be appointed by the Children's Bureau to prepare standards of prenatal care for the use of physicians. The Children's Bureau requested a prominent obstetrician to organize such a committee, and 11 obstetricians from various parts of the country accepted places on the committee. The resulting standards were simple, concise, and suitable for use in conferences and centers and by private physicians. These standards were issued in the year under review. Copies of this bulletin were distributed to the States in quantities sufficient to be sent to every private physician and to centers and State workers. The total number sent to the States and Hawaii was approximately 110,000. Forty-seven States and Hawaii requested them in quantities. Additional requests were received for copies of these prenatal standards for distribution and use in medical schools and universities. Eight medical schools requested them for

distribution among students. The obstetrical-history blank, which covers the prenatal and lying-in periods, is also printed separately and copies can be secured in quantities from the Government Printing Office. (See p. 94.)

#### STUDIES OF MATERNAL MORTALITY

At the State bureau directors' conference in January, 1926, the importance of undertaking some state-wide studies of maternal deaths was discussed, and the Children's Bureau was requested to assist in preparing a uniform schedule and plans for collecting the data. This was done with the aid of the consulting obstetrical committee that had formulated the Standards of Prenatal Care. The initiation of this study will be a feature of the work in several States in the coming year. The investigation will cover several years and the data collected will be compiled and published by the Children's Bureau.

A report on maternal mortality, by Dr. Robert M. Woodbury, which was issued shortly after the close of the fiscal year,<sup>2</sup> discusses the risk of death in childbirth from all diseases caused by pregnancy and confinement. Maternal mortality rates over a series of years in the United States and other countries are analyzed, and the comparability of the United States and foreign rates is discussed.

#### PROGRESS OF RICKETS STUDIES

The report of the clinical findings of the examination for rickets of 1,439 children in the District of Columbia, of the X-ray examination of 926 of them, and the correlation of these data with the facts as to the state of nutrition and the dietary and hygienic conditions of the group was being written in the year under review.

The three-year demonstration of the community control of rickets at New Haven, under the direction of the child-hygiene division of the Children's Bureau and with the cooperation of the pediatric department of Yale University School of Medicine and the New Haven Department of Health, has continued through the year under review.<sup>3</sup>

#### BREAST FEEDING

The fact that infant mortality is higher among artificially-fed infants than for those breast fed indicates that mothers should be given more information on the importance of feeding their infants at the breast and maintaining their supply of breast milk. Accordingly the Children's Bureau prepared a new nontechnical folder on breast feeding<sup>4</sup> for distribution to mothers. It contains advice on diet, rest, hygiene, mental attitude and habits of the mother, regularity of nursing, manual expression of breast milk, and other factors influencing the mother's milk supply. This publication was prepared by the maternity and infant-hygiene division and was submitted to the bureau's advisory committee of pediatricians and

<sup>2</sup> Publication No. 158, issued in July, 1926.

<sup>3</sup> See A Demonstration of the Community Control of Rickets (Separate No. 4 from Proceedings of the Third Annual Conference of State Directors in Charge of the Local Administration of the Maternity and Infancy Act, 1926, U. S. Children's Bureau Publication No. 157, Washington, 1926). The demonstration was concluded in September, 1926.

<sup>4</sup> Folder No. 8, issued in September, 1926.

to other prominent pediatricians who are especially interested in breast feeding of infants. The suggestions received were incorporated in the folder.

#### BABY'S DAILY TIME CARDS<sup>5</sup>

A series of six small charts was prepared by the child-hygiene division of the bureau for use in connection with the bureau's exhibit at the Sesquicentennial Exposition. The front of each card gives a schedule for the baby's daily routine, and the back contains material on habit training and on diet. The cards are planned for babies from early infancy to 2 years of age.

#### OTHER PUBLICATIONS

The folder entitled "Sunlight for Babies," prepared by the child-hygiene division of the bureau, was completed in the year under review and was in press at the close of the fiscal year.<sup>6</sup> This is an elaboration, in more attractive form, of the leaflet on the subject previously distributed by the bureau.

A folder entitled "What Builds Babies? The Mother's Diet in the Pregnant and Nursing Periods," prepared for the bureau in the fiscal year 1925, was issued in August, 1925.

Dr. D. A. Thom, the author of *Child Management*, wrote three new sections (on disobedience, lying, and stealing) for that publication during the year, and the bulletin was issued in a revised edition that included the new material.

#### NEWS-LETTERS

News-letters were prepared in mimeographed form and sent at intervals to the State bureaus. The subjects included in the letters were scientific advancement, new publications, news from State bureaus, miscellaneous news, Federal maternity and infancy items, and foreign news.

#### DISTRIBUTION OF PUBLICATIONS

A number of publications of the Children's Bureau relate to the care and hygiene of mothers, infants, and children of preschool age. These are distributed free to persons requesting single copies, and limited numbers are supplied to the States for free distribution. Definite monthly allotments of Prenatal Care, Infant Care, and Child Care are made to the States, and many States buy additional quantities from the Government Printing Office. Wide use also was made during the year under review of the new bulletins—Standards for Physicians Conducting Conferences in Child-Health Centers and Standards of Prenatal Care. The number of copies of the more widely used publications distributed from the bureau in the fiscal year ended June 30, 1926, was as follows:

*Bulletins.*—Prenatal Care, 170,956; Infant Care, 311,142; Child Care, 165,511; Child Management, 62,490; <sup>7</sup> Standards for Physicians

<sup>5</sup> Chart No. 14, issued in October, 1926.

<sup>6</sup> Folder No. 5, issued in July, 1926.

<sup>7</sup> In the fiscal year ended June 30, 1926, the sales by the Government Printing Office were as follows: Prenatal Care, 30,000; Infant Care, 70,000; Child Care, 75,000; Child Management, 10,000.



Conducting Conferences in Child-Health Centers, 109,868; Standards of Prenatal Care, 117,000.

*Folders.*—Minimum Standards of Prenatal Care (revised), 38,329; Why Drink Milk? 40,814; What Builds Babies? 72,053.

*Dodgers.*—Is Your Child's Birth Recorded? 18,901; Bottle Feeding, 31,475; Feeding the Child, 90,680; The Care of the Baby (revised), 52,365; What Do Growing Children Need? 52,353; Breast Feeding, 28,372.<sup>8</sup>

*Leaflet.*—Sunlight for Babies, 22,898.<sup>8</sup>

For a list of the Children's Bureau publications bearing upon maternal, infant, and child hygiene and welfare see Appendix D, pages 93-95.

#### MOTION PICTURES AND EXHIBIT MATERIAL

The films and exhibit material of the Children's Bureau may be purchased or borrowed. Sale prices and the conditions of loan will be quoted on request.

"Our Children" is a two-reel film showing a community's effort to make itself safe for babies. It tells the story of the initiation of a child-health conference. "Well Born" is a two-reel film showing the need for and the essentials of prenatal care. Both "Our Children" and "Well Born" may be purchased with the Spanish titles, and one print of each film with Spanish titles is also available for loan. "Posture" is a two-reel film suitable for physicians, physical-education teachers, athletic directors, and recreation leaders, and also for general audiences. The effect of posture upon physical fitness and some of the more important exercises which make for correct posture are illustrated by motion pictures and animated drawings. Either reel may be used alone, the first being a general introduction suitable for parents and children. Though the posture film was not completed until March, 1926, the bureau received from that date to the end of the fiscal year nearly 500 requests for the loan of this film. A film called "Sun Babies," showing how sun baths will cure and also prevent rickets, was in preparation during the year under review.<sup>9</sup>

A series of film slides for use in automatic and hand film projectors has been produced within the year by the Children's Bureau. The negatives of these films are deposited with the laboratories, and prints are for sale by them. The film slide entitled "Trails That Lead to Mothers and Babies" illustrates the work done under the maternity and infancy act. "The Healthy Baby" shows the care of the baby to 2 years of age. "Rickets" shows the effect of this disease and how it is prevented and cured.

The Children's Bureau has a number of charts (wall panels) and posters, both in colors and in black and white, which are available for loan (see p. 95). In the year under review the bureau distributed free 900 sets of the six posture charts, largely to health centers and for use at child-health conferences.<sup>10</sup> There were also distributed free 558 copies of the colored poster, "The Health of the Child Is the Power of the Nation."

<sup>8</sup> Superseded by new folder on this subject.

<sup>9</sup> This film has been completed and is available for loan.

<sup>10</sup> From about Mar. 1 (the date of delivery) to June 30, 1926, the Government Printing Office sold 1,000 sets of the posture charts.



Models showing a prenatal center, a child's nursery and play room, babies taking sun baths, and correct and incorrect posture are also available for loan.

The Children's Bureau exhibit at the Sesquicentennial International Exposition, Philadelphia, Pa., June 1, 1926, to November 30, 1926, had as its most important feature a demonstration child-health conference housed in a temporary pavilion designed to illustrate the standards of equipment, furnishings, and organization which should obtain in such conferences. The conference staff included a physician, a public-health nurse, and a clerk. Each child was examined by appointment, and the examination given was complete. Advice on the essentials of child care and prenatal care was also given to many mothers who were attracted by the examination of the children. During September a posture demonstration in cooperation with the Philadelphia public schools was added to the clinic activities, and this interested many parents, physicians, and teachers. Motion pictures, film slides, and wall charts showed various phases of child care and welfare, and nursery and playground models were on exhibition.

The Children's Bureau sent an exhibit to the meeting of the American Medical Association at Dallas, Tex., in April, 1926, the Texas Bureau of Child Hygiene cooperating in the management of the booth. The exhibits included graphs on maternal and infant mortality, graphs on the findings of the Children's Bureau study of rickets among a group of children in Washington, D. C., and the bureau's film on posture.

At the following meetings the Children's Bureau exhibits included material relating to the work of the maternity and infant-hygiene division: American Health Congress (Atlantic City, N. J., May, 1926); Federation of Women's Clubs (Atlantic City, N. J., May, 1926); Women's Industrial Conference (Washington, D. C., January, 1926); American Child Health Association (Atlantic City, N. J., May, 1926); and a number of State board of health meetings and State fairs for which special exhibits from the Children's Bureau were requested.

#### EXTENSION OF THE AUTHORIZED APPROPRIATION FOR THE MATERNITY AND INFANCY ACT

The appropriation authorized under section 2 of the maternity and infancy act was for a five-year period that expires June 30, 1927. On December 21, 1925, the Secretary of Labor, with the approval of the President, recommended to the chairmen of the Senate Committee on Education and Labor and of the House Committee on Interstate and Foreign Commerce, the committees which had had the measure before them in 1920 and 1921, that the appropriation in the amount originally authorized should be continued for the fiscal years 1928 and 1929. The reasons why this recommendation was made were as follows:

1. Five years is much too short a period to carry out a public-health program. It is a test as to whether the plan is calculated to secure the cooperation necessary for the success of such a program. It is believed that the maternity and infancy act has already passed this test successfully.

2. To discontinue cooperation now would result in loss of time and money spent in preliminary work. Some States had no child-health work under the State government before this act was passed. Foundation work has been completed in nearly all the States, so that actual developments on a state-wide scale will soon be under way. As the work was primarily educational, its effects are cumulative; to discontinue would be to fail to secure the proportionately greater results that should follow this period of preliminary organization.

3. The infant mortality rate in the United States, though substantially lower in 1925 than in 1921, was still unnecessarily high. Figures of the United States Bureau of the Census for 1925 indicated 72 deaths per 1,000 live births in the registration area. In numbers this means an estimated total of 190,000 infants dying in the United States during their first year of life. It is possible to reduce this death rate. Five States—Nebraska, Iowa, Minnesota, Washington, and Oregon—have rates of 60 or below, and New Zealand had a rate of 40 in 1924. The types of work which the States are getting under way with maternity and infancy funds have proved successful in saving infant lives.

4. Maternal mortality in the United States is still high. The proportion of mothers dying in childbirth in the United States is higher than in most civilized countries for which comparable statistics are available. The maternal death rate reported by the vital-statistics division of the United States Bureau of the Census for 1924 was 6.6 per 1,000 live births in the birth-registration area. Conservative estimates indicate that of the 15,375 women who died in childbirth in the death-registration area in 1924 at least half could have been saved. The prenatal programs which the States have been developing are fundamentally educational for the general public and for the individual mother who is reached through the conferences.

The bill introduced by the chairman of the House committee (H. R. 7555) embodying the suggestion made for a two-year extension of the maternity and infancy appropriation was favorably reported by the Committee on Interstate and Foreign Commerce and passed the House April 5, 1926, by a vote of 218 to 44. The House bill was reported to the Senate by the Committee on Education and Labor with an amendment providing that the appropriation should be extended for one year only. At the end of the session the bill had not come to a vote in the Senate, though it remained on the Senate calendar.<sup>11</sup>

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<sup>11</sup> The Senate on Jan. 13, 1927, passed the House bill (H. R. 7555) extending for two additional years, i. e., to June 30, 1929, the authorized appropriation for carrying out the provisions of the maternity and infancy act. The bill was amended to provide that at the expiration of the two-year period the maternity and infancy act would be of no force and effect. The House concurred in this amendment on Jan. 19, and the bill was signed by the President on Jan. 22, 1927.



## APPENDIXES

### APPENDIX A.—TEXT OF THE ACT FOR THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY AND OF SUPPLEMENTARY LEGISLATION

[S. 1039—Sheppard-Towner Act; Public 97—67th Congress; 42 Stat. 224]

An Act For the promotion of the welfare and hygiene of maternity and infancy, and for other purposes

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That there is hereby authorized to be appropriated annually, out of any money in the Treasury not otherwise appropriated, the sums specified in section 2 of this Act, to be paid to the several States for the purpose of cooperating with them in promoting the welfare and hygiene of maternity and infancy as hereinafter provided.

SEC. 2. For the purpose of carrying out the provisions of this Act, there is authorized to be appropriated, out of any moneys in the Treasury not otherwise appropriated, for the current fiscal year \$480,000, to be equally apportioned among the several States, and for each subsequent year, for the period of five years, \$240,000, to be equally apportioned among the several States in the manner hereinafter provided: *Provided*, That there is hereby authorized to be appropriated for the use of the States, subject to the provisions of this Act, for the fiscal year ending June 30, 1922, an additional sum of \$1,000,000, and annually thereafter, for the period of five years, an additional sum not to exceed \$1,000,000: *Provided further*, That the additional appropriations herein authorized shall be apportioned \$5,000 to each State and the balance among the States in the proportion which their population bears to the total population of the States of the United States, according to the last preceding United States census: *And provided further*, That no payment out of the additional appropriation herein authorized shall be made in any year to any State until an equal sum has been appropriated for that year by the legislature of such State for the maintenance of the services and facilities provided for in this Act.

So much of the amount apportioned to any State for any fiscal year as remains unpaid to such State at the close thereof shall be available for expenditures in that State until the close of the succeeding fiscal year.

SEC. 3. There is hereby created a Board of Maternity and Infant Hygiene, which shall consist of the Chief of the Children's Bureau, the Surgeon General of the United States Public Health Service, and the United States Commissioner of Education, and which is hereafter designated in this Act as the Board. The Board shall elect its own chairman and perform the duties provided for in this Act.

The Children's Bureau of the Department of Labor shall be charged with the administration of this Act, except as herein otherwise provided, and the Chief of the Children's Bureau shall be the executive officer. It shall be the duty of the Children's Bureau to make or cause to be made such studies, investigations, and reports as will promote the efficient administration of this Act.

SEC. 4. In order to secure the benefits of the appropriations authorized in section 2 of this Act, any State shall, through the legislative authority thereof, accept the provisions of this Act and designate or authorize the creation of a State agency with which the Children's Bureau shall have all necessary powers to cooperate as herein provided in the administration of the provisions of this Act: *Provided*, That in any State having a child-welfare or child-hygiene division in its State agency of health, the said State agency of health shall administer the provisions of this Act through such divisions. If the legislature of any State has not made provision for accepting the provisions of this Act the governor of such State may in so far as he is authorized to do so by the laws of such State accept the provisions of this Act and designate or create a State agency to cooperate with the Children's Bureau until six months after the



adjournment of the first regular session of the legislature in such State following the passage of this Act.

SEC. 5. So much, not to exceed 5 per centum, of the additional appropriations authorized for any fiscal year under section 2 of this Act, as the Children's Bureau may estimate to be necessary for administering the provisions of this Act, as herein provided, shall be deducted for that purpose, to be available until expended.

SEC. 6. Out of the amounts authorized under section 5 of this Act the Children's Bureau is authorized to employ such assistants, clerks, and other persons in the District of Columbia and elsewhere, to be taken from the eligible lists of the Civil Service Commission, and to purchase such supplies, material, equipment, office fixtures, and apparatus, and to incur such travel and other expenses as it may deem necessary for carrying out the purposes of this Act.

SEC. 7. Within sixty days after any appropriation authorized by this Act has been made, the Children's Bureau shall make the apportionment herein provided for and shall certify to the Secretary of the Treasury the amount estimated by the bureau to be necessary for administering the provisions of this Act, and shall certify to the Secretary of the Treasury and to the treasurers of the various States the amount which has been apportioned to each State for the fiscal year for which such appropriation has been made.

SEC. 8. Any State desiring to receive the benefits of this Act shall, by its agency described in section 4, submit to the Children's Bureau detailed plans for carrying out the provisions of this Act within such State, which plans shall be subject to the approval of the board: *Provided*, That the plans of the States under this Act shall provide that no official, or agent, or representative in carrying out the provisions of this Act shall enter any home or take charge of any child over the objection of the parents, or either of them, or the person standing in loco parentis or having custody of such child. If these plans shall be in conformity with the provisions of this Act and reasonably appropriate and adequate to carry out its purposes they shall be approved by the board and due notice of such approval shall be sent to the State agency by the Chief of the Children's Bureau.

SEC. 9. No official, agent, or representative of the Children's Bureau shall by virtue of this Act have any right to enter any home over the objection of the owner thereof, or to take charge of any child over the objection of the parents, or either of them, or of the person standing in loco parentis or having custody of such child. Nothing in this Act shall be construed as limiting the power of a parent or guardian or person standing in loco parentis to determine what treatment or correction shall be provided for a child or the agency or agencies to be employed for such purpose.

SEC. 10. Within sixty days after any appropriation authorized by this Act has been made, and as often thereafter while such appropriation remains unexpended as changed conditions may warrant, the Children's Bureau shall ascertain the amounts that have been appropriated by the legislatures of the several States accepting the provisions of this Act and shall certify to the Secretary of the Treasury the amount to which each State is entitled under the provisions of this Act. Such certificate shall state (1) that the State has, through its legislative authority, accepted the provisions of this Act and designated or authorized the creation of an agency to cooperate with the Children's Bureau, or that the State has otherwise accepted this Act, as provided in section 4 hereof; (2) the fact that the proper agency of the State has submitted to the Children's Bureau detailed plans for carrying out the provisions of this Act, and that such plans have been approved by the board; (3) the amount, if any, that has been appropriated by the legislature of the State for the maintenance of the services and facilities of this Act, as provided in section 2 hereof; and (4) the amount to which the State is entitled under the provisions of this Act. Such certificate, when in conformity with the provisions hereof, shall, until revoked as provided in section 12 hereof, be sufficient authority to the Secretary of the Treasury to make payment to the State in accordance therewith.

SEC. 11. Each State agency cooperating with the Children's Bureau under this Act shall make such reports concerning its operations and expenditures as shall be prescribed or requested by the bureau. The Children's Bureau may, with the approval of the board, and shall, upon request of a majority of the board, withhold any further certificate provided for in section 10 hereof whenever it shall be determined as to any State that the agency thereof has not properly expended the money paid to it or the moneys herein required to

be appropriated by such State for the purposes and in accordance with the provisions of this Act. Such certificate may be withheld until such time or upon such conditions as the Children's Bureau, with the approval of the board, may determine; when so withheld the State agency may appeal to the President of the United States who may either affirm or reverse the action of the Bureau with such directions as he shall consider proper: *Provided*, That before any such certificate shall be withheld from any State, the chairman of the board shall give notice in writing to the authority designated to represent the State, stating specifically wherein said State has failed to comply with the provisions of this Act.

SEC. 12. No portion of any moneys apportioned under this Act for the benefit of the States shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings or equipment, or for the purchase or rental of any buildings or lands, nor shall any such moneys or moneys required to be appropriated by any State for the purposes and in accordance with the provisions of this Act be used for the payment of any maternity or infancy pension, stipend, or gratuity.

SEC. 13. The Children's Bureau shall perform the duties assigned to it by this Act under the supervision of the Secretary of Labor, and he shall include in his annual report to Congress a full account of the administration of this Act and expenditures of the moneys herein authorized.

SEC. 14. This Act shall be construed as intending to secure to the various States control of the administration of this Act within their respective States, subject only to the provisions and purposes of this Act.

Approved, November 23, 1921.

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[Public 35—68th Congress; 43 Stat. 17]

An Act To extend the provisions of certain laws to the Territory of Hawaii.

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SEC. 3. The Territory of Hawaii shall be entitled to share in the benefits of the Act entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes," approved November 23, 1921, and any Act amendatory thereof or supplementary thereto, upon the same terms and conditions as any of the several States. For the fiscal year ending June 30, 1925, there is authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, the sum of \$13,000, to be available for apportionment under such Act to the Territory, and annually thereafter such sum as would be apportioned to the Territory if such Act had originally included the Territory.

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Approved, March 10, 1924.

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[H. R. 7555. Public—No. 566—69th Congress]

An Act To authorize for the fiscal years ending June 30, 1928, and June 30, 1929, appropriations for carrying out the provisions of the Act entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes," approved November 23, 1921, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That section 2 of the Act entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes," approved November 23, 1921, is amended by striking out the words "for the period of five years" wherever such words appear in such section and inserting in lieu thereof the words "for the period of seven years."

SEC. 2. That said act entitled "An Act for the promotion of the welfare and hygiene of maternity and infancy, and for other purposes" approved November 23, 1921, shall, after June 30, 1929, be of no force and effect.

Approved January 22, 1927.

## APPENDIX B.—ADMINISTRATIVE AGENCIES AND OFFICERS

*State administrative agencies and names of the executive officers for the administration of the act for the welfare and hygiene of maternity and infancy (as of June 30, 1926)*

State (and Territory)	Administrative agency and department	Director
Alabama.....	Bureau of child hygiene and public-health nursing, State board of health (Montgomery).	Jessie L. Marriner, R. N.
Arizona.....	Child-hygiene division, State board of health (Phoenix).	Mrs. Charles R. Howe.
Arkansas.....	Bureau of child hygiene, State board of health (Little Rock).	Dr. Margaret W. Koenig. <sup>1</sup>
California.....	Bureau of child hygiene, State board of health (San Francisco).	Dr. Ellen S. Stadtmuller.
Colorado.....	Child-welfare bureau, State department of public instruction (Denver).	Mrs. E. N. Mathews. <sup>2</sup>
Connecticut <sup>3</sup> .....	Bureau of child hygiene, State department of health (Hartford).	Dr. A. Elizabeth Ingraham.
Delaware.....	Division of child hygiene, State board of health (Dover).	Dr. Cleland A. Sargent.
Florida.....	Bureau of child hygiene and public-health nursing, State board of health (Jacksonville).	Mrs. Laurie Jean Reid, R. N.
Georgia.....	Division of child hygiene, State board of health (Atlanta).	Dr. Joe P. Bowdoin.
Hawaii.....	Division of maternity and infancy, Territorial board of health (Honolulu).	Dr. V. B. Appleton.
Idaho.....	Bureau of child hygiene, State department of public welfare (Boise).	Dr. Ralph M. Fouch.
Illinois <sup>3</sup> .....	Division of child hygiene and public-health nursing, State department of public health (Springfield).	Dr. Grace S. Wightman.
Indiana.....	Division of infant and child hygiene, State board of health (Indianapolis).	Dr. Ada E. Schweitzer.
Iowa.....	Division of maternity and infant hygiene, State University of Iowa (Iowa City).	Edward H. Lauer, Ph. D.
Kansas <sup>3</sup> .....	Division of child hygiene, State board of health (Topeka).	Dr. J. C. Montgomery.
Kentucky.....	Bureau of maternal and child health, State board of health (Louisville).	Dr. Annie S. Veech.
Louisiana.....	Bureau of child hygiene, State board of health (New Orleans).	Agnes Morris.
Maine <sup>3</sup> .....	Division of public-health nursing and child hygiene, State department of health (Augusta).	Edith Soule, R. N.
Maryland.....	Bureau of child hygiene, State department of health (Baltimore).	Dr. J. H. Mason Knox, Jr. <sup>4</sup>
Massachusetts <sup>3</sup> .....	Division of hygiene, State department of public health (Boston).	Dr. Merrill E. Champion.
Michigan.....	Bureau of child hygiene and public-health nursing, State department of health (Lansing).	Dr. Lillian R. Smith
Minnesota.....	Division of child hygiene, State department of health (Minneapolis).	Dr. Ruth E. Boynton.
Mississippi.....	Bureau of child hygiene and public-health nursing, State board of health (Jackson).	Dr. F. J. Underwood. <sup>5 6</sup>
Missouri.....	Division of child hygiene, State board of health (Jefferson City).	Dr. Irl Brown Krause.
Montana.....	Division of child welfare, State board of health (Helena).	Dr. Hazel Dell Bonness.
Nebraska.....	Division of child hygiene, bureau of health, State department of public welfare (Lincoln).	Louise M. Murphy, R. N.
Nevada.....	Child-welfare division, State board of health (Reno).	Mrs. S. H. Wheeler. <sup>3</sup>
New Hampshire.....	Division of maternity, infancy, and child hygiene, State board of health (Concord).	Elena M. Crough, R. N.
New Jersey.....	Bureau of child hygiene, State department of health (Trenton).	Dr. Julius Levy. <sup>7</sup>
New Mexico.....	Division of child hygiene and public-health nursing, bureau of public health, State department of public welfare (Santa Fe).	Dorothy R. Anderson, R. N. <sup>4</sup>
New York.....	Division of maternity, infancy, and child hygiene, State department of health (Albany).	Dr. Elizabeth M. Gardiner.
North Carolina.....	Bureau of maternity and infancy, State board of health (Raleigh).	Dr. H. A. Taylor.
North Dakota.....	Division of child hygiene and public-health nursing, State department of public health (Bismarck).	Dr. Maysil M. Williams.
Ohio.....	Division of child hygiene, State department of health (Columbus).	Dr. H. E. Kleinschmidt. <sup>4</sup>
Oklahoma.....	Bureau of maternity and infancy, State department of public health (Oklahoma City).	Dr. Lucile S. Blachly.
Oregon.....	Bureau of child hygiene, State board of health (Portland).	Glendora Blakely, R. N. <sup>8</sup>
Pennsylvania.....	Preschool division, bureau of child health, State department of health (Harrisburg).	Dr. Mary Riggs Noble. <sup>4</sup>
Rhode Island.....	Division of child welfare, State board of health (Providence).	Dr. Marion A. Gleason.
South Carolina.....	Bureau of child hygiene and public-health nursing, State board of health (Columbia).	Ada Taylor Graham, R. N.

<sup>1</sup> Associate director.<sup>2</sup> Executive secretary.<sup>3</sup> State not cooperating.<sup>4</sup> Chief.<sup>5</sup> Acting.<sup>6</sup> State health officer.<sup>7</sup> Consultant.<sup>8</sup> Assistant director.



*State administrative agencies and names of the executive officers for the administration of the act for the welfare and hygiene of maternity and infancy (as of June 30, 1926)—Continued*

State (and Territory)	Administrative agency and department	Director
South Dakota.....	Division of child hygiene, State board of health (Wau- bay).	Dr. Clara E. Hayes.
Tennessee.....	Division of child hygiene and public-health nursing, State department of public health (Nashville).	Dr. W. J. Breeding.
Texas.....	Bureau of child hygiene, State board of health (Austin).	Dr. H. N. Barnett.
Utah.....	Bureau of child hygiene, State board of health (Salt Lake City).	Dr. H. Y. Richards.
Vermont.....	State department of public health (Burlington).....	Dr. Charles F. Dalton. <sup>5</sup>
Virginia.....	Bureau of child welfare, State board of health (Rich- mond).	Dr. Mary E. Brydon.
Washington.....	Division of child hygiene, State department of health (Seattle).	Ella Erikson, R. N.
West Virginia.....	Division of child hygiene and public-health nursing, State department of health (Charleston).	Mrs. Jean T. Dillon, R. N.
Wisconsin.....	Bureau of child welfare, State board of health (Madison).	Dr. Cora S. Allen.
Wyoming.....	Division of maternal and infant welfare and child hy- giene, State department of public health (Chey- enne).	Dr. G. M. Anderson. <sup>5 6</sup>

<sup>5</sup> Acting.

<sup>6</sup> State health officer.

### APPENDIX C.—MATERNAL AND INFANT MORTALITY RATES

TABLE I.—*Maternal mortality rates, 1921 and 1925; United States birth-registration area as of 1921*<sup>1</sup>

State	1921		1925	
	Number of maternal deaths	Rate per 1,000 live births	Number of maternal deaths	Rate per 1,000 live births
Birth-registration area as of 1921 <sup>1</sup> .....	11, 193	6.7	10, 240	6.4
California.....	494	6.8	512	6.0
Connecticut.....	180	5.3	146	4.9
Delaware.....	32	6.3	36	7.7
District of Columbia.....	91	10.1	79	8.7
Indiana.....	468	6.9	389	6.0
Kansas.....	267	6.4	240	6.5
Kentucky.....	422	6.3	378	6.0
Maine.....	131	7.4	126	7.2
Maryland.....	246	6.7	197	5.8
Massachusetts.....	601	6.5	545	6.3
Michigan.....	660	6.9	632	6.4
Minnesota.....	329	5.7	284	5.3
Mississippi.....	440	9.5	444	9.8
Nebraska.....	212	6.6	167	5.7
New Hampshire.....	63	6.2	67	7.1
New Jersey.....	458	5.9	477	6.4
New York.....	1, 504	6.3	1, 369	6.0
North Carolina.....	650	7.3	725	8.7
Ohio.....	934	7.2	858	6.8
Oregon.....	115	7.4	112	7.2
Pennsylvania.....	1, 568	6.8	1, 382	6.4
Rhode Island.....	103	7.1	75	5.2
Utah.....	106	7.3	71	5.2
Vermont.....	58	7.3	51	6.8
Virginia.....	491	7.0	429	7.0
Washington.....	212	7.8	149	6.0
Wisconsin.....	358	5.8	300	5.2

<sup>1</sup> Excluding South Carolina, which was dropped from the birth-registration area in 1925.



TABLE II.—Deaths of women from puerperal causes and death rates per 10,000 live births; United States birth-registration area, 1925<sup>1</sup>

State	Cause of death							
	Number of deaths				Rate per 10,000 live births			
	Total	Puerperal septicemia	Puerperal albumi- nuria and convul- sions	All other puer- peral causes	Total	Puerperal septicemia	Puerperal albumi- nuria and convul- sions	All other puer- peral causes
Birth-registration area.....	12, 158	4, 569	3, 256	4, 333	64.7	24.3	17.3	23.1
California.....	512	199	128	185	60.1	23.4	15.0	21.7
Connecticut.....	146	53	37	56	49.1	17.8	12.4	18.8
Delaware.....	36	18	8	10	77.0	38.5	17.1	21.4
District of Columbia.....	79	37	20	22	86.7	40.6	22.0	24.2
Florida.....	357	93	151	113	121.4	31.6	51.4	38.4
Illinois.....	789	323	186	280	58.3	23.8	13.7	20.7
Indiana.....	389	179	91	119	60.5	27.8	14.1	18.5
Iowa.....	267	98	77	92	55.9	20.5	16.1	19.3
Kansas.....	240	110	57	73	65.4	30.0	15.5	19.9
Kentucky.....	378	163	104	111	59.5	25.7	16.4	17.5
Maine.....	126	30	43	53	72.2	17.2	24.6	30.4
Maryland.....	197	88	47	62	58.2	26.0	13.9	18.3
Massachusetts.....	545	167	119	259	63.3	19.4	13.8	30.1
Michigan.....	632	257	148	227	63.7	25.9	14.9	22.9
Minnesota.....	284	107	70	107	52.8	19.9	13.0	19.9
Mississippi.....	444	144	174	126	98.3	31.9	38.5	27.9
Montana.....	83	35	19	29	81.1	34.2	18.6	28.3
Nebraska.....	167	65	41	61	57.1	22.2	14.0	20.9
New Hampshire.....	67	26	19	22	71.2	27.6	20.2	23.4
New Jersey.....	477	192	113	172	64.3	25.9	15.2	23.2
New York.....	1, 369	525	278	566	59.6	22.9	12.1	24.6
North Carolina.....	725	159	325	241	86.6	19.0	38.3	28.8
North Dakota.....	89	32	30	27	61.5	22.1	20.7	18.7
Ohio.....	858	370	172	316	67.6	29.2	13.6	24.9
Oregon.....	112	48	37	27	72.3	31.0	23.9	17.4
Pennsylvania.....	1, 382	586	351	445	64.2	27.2	16.3	20.7
Rhode Island.....	75	22	21	32	52.1	15.3	14.6	22.2
Utah.....	71	21	22	28	51.7	15.3	16.0	20.4
Vermont.....	51	15	15	21	67.9	20.0	20.0	28.0
Virginia.....	429	122	146	161	70.1	19.9	23.9	26.3
Washington.....	149	59	33	57	60.2	23.8	13.3	23.0
West Virginia.....	287	116	71	100	63.3	25.6	15.7	22.1
Wisconsin.....	300	92	95	113	52.3	16.0	16.6	19.7
Wyoming.....	46	18	8	20	95.2	37.2	16.6	41.4

<sup>1</sup> Source: U. S. Bureau of the Census.

TABLE III.—Deaths of infants under 1 year of age (exclusive of stillbirths) and death rates per 10,000 live births from important causes:  
United States birth-registration area, 1925<sup>1</sup>

State	Cause of death											
	Number of deaths					Rate per 10,000 live births						
	Total	Prenatal and natal causes	Gastric and intestinal diseases	Respiratory diseases	Epidemic and other communicable diseases (excluding syphilis)	All other and un-known causes	Total	Prenatal and natal causes	Gastric and intestinal diseases	Respiratory diseases	Epidemic and other communicable diseases (excluding syphilis)	All other and un-known causes
Birth-registration area.....	124,632	65,554	22,072	19,212	10,818	16,986	716.7	349.0	117.5	102.3	57.6	90.4
California.....	5,855	2,801	1,020	855	629	550	687.2	328.7	119.7	100.3	73.8	64.6
Connecticut.....	2,179	1,121	298	310	191	259	732.8	377.0	100.2	104.3	64.2	87.1
Delaware.....	423	167	116	65	34	41	905.0	357.3	248.2	139.1	72.7	87.7
District of Columbia.....	796	419	140	118	48	71	874.1	460.1	153.7	129.6	52.7	78.0
Florida.....	2,181	1,045	315	186	208	427	741.8	355.4	107.1	63.3	70.7	145.2
Illinois.....	9,822	4,954	1,860	1,476	697	935	725.2	365.8	137.3	109.0	44.1	61.0
Indiana.....	4,370	2,137	879	584	402	368	679.2	332.1	136.6	90.8	62.5	57.2
Iowa.....	2,673	1,484	248	316	250	375	559.7	310.7	51.9	66.2	52.3	78.5
Kansas.....	2,266	1,240	289	294	185	258	617.2	337.7	78.7	80.1	50.4	70.3
Kentucky.....	4,450	1,831	861	505	616	767	705.4	288.3	135.6	79.5	81.3	120.8
Maine.....	1,332	743	148	160	102	179	703.2	425.7	84.8	91.7	58.4	102.6
Maryland.....	3,048	1,339	676	498	241	294	900.1	395.4	199.6	147.1	71.2	86.8
Massachusetts.....	6,280	3,244	696	606	527	705	729.9	377.0	80.9	128.8	61.3	81.9
Michigan.....	7,474	3,814	1,324	992	483	861	753.3	384.4	133.4	100.0	48.7	86.8
Minnesota.....	3,242	1,890	409	409	259	402	602.9	351.5	52.4	76.1	48.2	74.8
Mississippi.....	3,092	929	380	294	313	1,176	684.8	205.7	84.2	65.1	69.3	260.4
Montana.....	726	363	81	114	78	90	709.4	354.7	79.1	111.4	76.2	87.9
Nebraska.....	1,687	954	182	215	151	185	577.1	326.3	62.3	73.5	51.7	63.3
New Hampshire.....	1,717	400	101	81	55	80	702.2	423.2	107.4	86.1	58.5	85.0
New Jersey.....	5,112	2,472	873	796	382	589	689.1	333.2	117.7	107.3	51.5	79.4
New York.....	13,527	8,110	2,364	2,535	1,002	1,516	675.9	353.0	102.9	110.4	43.6	66.0
North Carolina.....	6,595	2,577	1,052	692	436	1,838	787.8	307.8	125.7	82.7	52.1	219.6
North Dakota.....	1,036	436	149	155	93	203	715.9	301.3	103.0	107.1	64.3	140.3
Ohio.....	8,832	4,468	1,512	1,299	687	866	696.1	352.1	119.2	102.4	54.1	68.3
Oregon.....	792	458	45	99	94	96	511.4	295.8	29.1	63.9	60.7	62.0
Pennsylvania.....	17,640	7,810	3,500	3,127	1,395	1,808	820.0	363.1	102.7	145.4	64.8	84.0
Rhode Island.....	1,049	545	127	176	89	112	728.5	378.5	88.2	122.2	61.8	77.8
Utah.....	766	439	102	102	76	91	557.7	319.6	42.2	74.3	55.3	66.3
Vermont.....	544	334	51	58	36	65	734.5	374.8	67.9	77.2	47.9	86.6
Virginia.....	4,944	2,324	774	496	523	827	807.9	379.8	126.5	81.1	85.5	135.1
Washington.....	1,395	812	119	170	135	159	563.8	328.2	48.1	68.7	54.6	64.3
West Virginia.....	3,614	1,651	964	403	283	313	797.6	364.4	212.8	88.9	62.5	69.1
Wisconsin.....	3,854	2,084	553	490	299	428	672.3	363.5	96.5	85.5	52.2	74.7
Wyoming.....	369	169	35	34	19	52	639.4	349.7	72.4	70.3	39.3	107.6

<sup>1</sup> Source: U. S. Bureau of the Census.

TABLE IV.—*Infant mortality rates, 1921 and 1925; United States birth-registration area as of 1921<sup>1</sup>*

State	1921		1925	
	Infant deaths		Infant deaths	
	Number	Rate per 1,000 live births	Number	Rate per 1,000 live births
Birth-registration area as of 1921 <sup>1</sup> .....	124,737	75	114,291	72
California.....	4,806	66	5,855	69
Connecticut.....	2,492	73	2,179	73
Delaware.....	494	98	423	91
District of Columbia.....	750	83	796	87
Indiana.....	4,861	71	4,370	68
Kansas.....	2,597	63	2,266	62
Kentucky.....	4,168	62	4,480	71
Maine.....	1,559	88	1,332	76
Maryland.....	3,462	94	3,048	90
Massachusetts.....	7,006	76	6,280	73
Michigan.....	7,571	79	7,474	75
Minnesota.....	3,381	59	3,242	60
Mississippi.....	3,157	68	3,092	68
Nebraska.....	1,888	59	1,687	58
New Hampshire.....	878	87	717	76
New Jersey.....	5,800	74	5,112	69
New York.....	18,093	75	15,527	68
North Carolina.....	6,633	75	6,595	79
Ohio.....	9,714	75	8,832	70
Oregon.....	788	51	792	51
Pennsylvania.....	20,133	88	17,640	82
Rhode Island.....	1,344	93	1,049	73
Utah.....	1,062	73	766	56
Vermont.....	617	78	544	72
Virginia.....	5,523	79	4,944	81
Washington.....	1,512	55	1,395	56
Wisconsin.....	4,448	72	3,854	67

<sup>1</sup> Excluding South Carolina, which was dropped from the birth-registration area in 1925.TABLE V.—*Live births and deaths under 1 year of age and rate of deaths per 1,000 live births; United States birth-registration area, 1925*

State	Live births	Deaths under 1 year of age	Rate per 1,000 live births
Birth-registration area.....	1,878,880	134,642	71.7
California.....	85,204	5,855	68.7
Connecticut.....	29,736	2,179	73.3
Delaware.....	4,674	423	90.5
District of Columbia.....	9,107	796	87.4
Florida.....	29,403	2,171	73.8
Illinois.....	135,437	9,822	72.5
Indiana.....	64,342	4,370	67.9
Iowa.....	47,760	2,673	56.0
Kansas.....	36,716	2,266	61.7
Kentucky.....	63,507	4,480	70.5
Maine.....	17,453	1,332	76.3
Maryland.....	33,864	3,048	90.0
Massachusetts.....	86,037	6,280	73.0
Michigan.....	99,220	7,474	75.3
Minnesota.....	53,776	3,242	60.3
Mississippi.....	45,155	3,092	68.5
Montana.....	10,234	726	70.9
Nebraska.....	29,233	1,687	57.7
New Hampshire.....	9,407	717	76.2
New Jersey.....	74,181	5,112	68.9
New York.....	229,717	15,527	67.6
North Carolina.....	83,716	6,595	78.8
North Dakota.....	14,471	1,036	71.6
Ohio.....	126,878	8,832	69.6
Oregon.....	15,486	792	51.1
Pennsylvania.....	215,120	17,640	82.0
Rhode Island.....	14,400	1,049	72.8
Utah.....	13,735	766	55.8
Vermont.....	7,509	544	72.4
Virginia.....	61,193	4,944	80.8
Washington.....	24,741	1,395	56.4
West Virginia.....	45,311	3,614	79.8
Wisconsin.....	57,324	3,854	67.2
Wyoming.....	4,833	309	63.9

TABLE VI.—*Live births and puerperal deaths and rate of deaths per 1,000 live births; United States birth-registration area, 1925*

State	Live births	Puerperal deaths	Rate per 1,000 live births
Birth-registration area.....	1, 878, 880	12, 158	6. 5
California.....	85, 204	512	6. 0
Connecticut.....	29, 736	146	4. 9
Delaware.....	4, 674	36	7. 7
District of Columbia.....	9, 107	79	8. 7
Florida.....	29, 403	357	12. 1
Illinois.....	135, 437	789	5. 8
Indiana.....	64, 342	389	6. 0
Iowa.....	47, 760	267	5. 6
Kansas.....	36, 716	240	6. 5
Kentucky.....	63, 507	378	6. 0
Maine.....	17, 453	126	7. 2
Maryland.....	33, 864	197	5. 8
Massachusetts.....	86, 037	545	6. 3
Michigan.....	99, 220	632	6. 4
Minnesota.....	53, 776	284	5. 3
Mississippi.....	45, 155	444	9. 8
Montana.....	10, 234	83	8. 1
Nebraska.....	29, 223	167	5. 7
New Hampshire.....	9, 407	67	7. 1
New Jersey.....	74, 181	477	6. 4
New York.....	229, 717	1, 369	6. 0
North Carolina.....	83, 716	725	8. 7
North Dakota.....	14, 471	89	6. 2
Ohio.....	126, 878	853	6. 8
Oregon.....	15, 486	112	7. 2
Pennsylvania.....	215, 120	1, 382	6. 4
Rhode Island.....	14, 400	75	5. 2
Utah.....	13, 735	71	5. 2
Vermont.....	7, 509	51	6. 8
Virginia.....	61, 193	429	7. 0
Washington.....	24, 741	149	6. 0
West Virginia.....	45, 311	287	6. 3
Wisconsin.....	57, 324	300	5. 2
Wyoming.....	4, 833	46	9. 5

#### APPENDIX D.—PUBLICATIONS AND EXHIBITS OF THE CHILDREN'S BUREAU BEARING UPON MATERNAL, INFANT, AND CHILD WELFARE AND HYGIENE

##### BULLETINS

The Promotion of the Welfare and Hygiene of Maternity and Infancy—Report of the administration of the act of Congress of November 23, 1921, for the period March 20, 1922, to June 30, 1923. No. 137. 42 pp.

The Promotion of the Welfare and Hygiene of Maternity and Infancy—Report of the administration of the act of Congress of November 23, 1921, for fiscal year ended June 30, 1924. No. 146. 56 pp.

The Promotion of the Welfare and Hygiene of Maternity and Infancy—Report of the administration of the act of Congress of November 23, 1921, for fiscal year ended June 30, 1925. No. 156. 81 pp.

Proceedings of the Third Annual Conference of State Directors in Charge of the Local Administration of the Maternity and Infancy Act (act of Congress of November 23, 1921), Held in Washington, D. C., January 11-13, 1926. No. 157. 209 pp.

The Physician's Part in a Practical State Program of Prenatal Care, by Fred L. Adair, M. D. Standards of Prenatal Care, by Robert L. De Normandie, M. D. Separate No. 1. 20 pp.

The Nurse's Part in a State Program of Prenatal Care, by Carolyn Conant Van Blarcom, R. N. Separate No. 2. 8 pp.

How to Make a Study of Maternal Mortality, by Robert L. De Normandie, M. D. Separate No. 3. 11 pp.

A Demonstration of the Community Control of Rickets, by Martha M. Elliot, M. D. Separate No. 4. 5 pp.

Stimulation of Birth Registration, by William H. Davis, M. D. Separate No. 5. 5 pp.



- The Practical Application of Mental Hygiene to the Welfare of the Child, by D. A. Thom, M. D. Separate No. 6. 9 pp.
- Nutrition in Relation to Reproduction and Vitality of the Offspring, by Nina Simmonds, Sc. D. Separate No. 7. 11 pp.
- Prenatal Care, by Mrs. Max West. No. 4. 41 pp.
- Infant Care (revised). No. 8. 118 pp.
- Child Care—The Preschool Age, by Mrs. Max West. No. 30. 82 pp.
- Child Management (revised October, 1925), by D. A. Thom, M. D. No. 143. 36 pp.
- Standards of Prenatal Care; an outline for the use of physicians. No. 153. 4 pp. (Also sample form for pregnancy record.)
- Standards for Physicians Conducting Conferences at Child-Health Centers. No. 154. 11 pp. (Also sample forms for conference record.)
- How to Conduct a Children's Health Conference. No. 23. 24 pp.
- Children's Health Centers. No. 45. 7 pp.
- The Public-Health Nurse; how she helps to keep the babies well. No. 47. 7 pp.
- Milk, the Indispensable Food for Children, by Dorothy Reed Mendenhall, M. D. No. 163. 43 pp.
- What Is Malnutrition? (revised), by Lydia J. Roberts. No. 59. 19 pp.
- Nutrition Work for Preschool Children, by Agnes K. Hanna. No. 138. 25 pp.
- Maternal Mortality: the risk of death in childbirth and from all diseases caused by pregnancy and confinement, by Robert Morse Woodbury, Ph. D. No. 158. 163 pp.
- The Hygiene of Maternity and Childhood—Outlines for Study. Separate No. 1 from Child Care and Child Welfare, prepared in cooperation with the Federal Board for Vocational Education. No. 90. 327 pp.
- Causal Factors in Infant Mortality; a statistical study based on investigations in eight cities, by Robert Morse Woodbury, Ph. D. A consolidated report of the Children's Bureau studies in this field. No. 142. 245 pp.
- Habit Clinics for the Child of Preschool Age; their organization and practical value, by D. A. Thom, M. D. No. 135. 71 pp.
- Child Mentality and Management—Outlines for Study. Separate No. 2 from Child Care and Child Welfare, prepared in cooperation with the Federal Board for Vocational Education. No. 91. 54 pp.
- Posture Clinics; organization and exercises, by Armin Klein, M. D. No. 164. 32 pp.
- Posture Exercises; a handbook for schools and for teachers of physical education, by Armin Klein, M. D., and Leah C. Thomas. No. 165. 33 pp.
- A Study of Maternity Homes in Minnesota and Pennsylvania. No. 167. 92 pp.
- Recreation for Blind Children, by Martha Travilla Speakman. No. 171. 74 pp.
- A Tabular Summary of State Laws Relating to Public Aid to Children in Their Own Homes in Effect January 1, 1925, and the text of the laws of certain States. Revised Edition. Chart No. 3. 37 pp.
- Minimum Standards for Child Welfare Adopted by the Washington and Regional Conferences on Child Welfare, 1919. No. 62. 15 pp.

#### LEAFLETS

- Decline in Infant Mortality in the United States Birth-Registration Area, 1915 to 1921, by Robert Morse Woodbury, Ph. D. (Reprinted from the American Journal of Public Health, May, 1923.) 7 pp.
- Economic Factors in Infant Mortality, by Robert Morse Woodbury, Ph. D. (Reprinted from the Quarterly Publication of the American Statistical Association, June, 1924.) 19 pp.
- Federal Aid for the Protection of Maternity and Infancy, by Grace Abbott. (Revised reprint from the American Journal of Public Health, September, 1924.) 8 pp.
- The Trend of Maternal Mortality Rates in the United States Death-Registration Area, 1900-1921, by Robert Morse Woodbury, Ph. D. (Reprinted from the American Journal of Public Health, September, 1924.) 7 pp.
- Westergaard's Method of Expected Deaths as Applied to the Study of Infant Mortality, by Robert Morse Woodbury, Ph. D. (Reprinted from the Quarterly Publication of the American Statistical Association, September, 1922.) 12 pp.

## FOLDERS

Minimum Standards of Prenatal Care (revised). No. 1.  
 Backyard Playgrounds. No. 2.  
 Why Drink Milk? No. 3.  
 What Builds Babies? No. 4.  
 Sunlight for Babies. No. 5.  
 Breast Feeding. No. 8.

## DODGERS

Is Your Child's Birth Recorded? (revised). No. 3.  
 Feeding the Child. No. 8.  
 The Care of the Baby (revised). No. 9.  
 What Do Growing Children Need? No. 10.

## SMALL CHARTS

Baby's Daily Time Cards (a series of six cards, 5 by 8 inches, a different color for each age period). Chart No. 14.

EXHIBIT MATERIAL <sup>1</sup>

The Health of the Child Is the Power of the Nation (poster in colors, 18 by 24 inches).  
 Infant Mortality (series of 8 charts in colors, 24 by 36 inches).  
 Posture Standards (6 charts, 18 by 38 inches). To be purchased directly from the Government Printing Office at 50 cents for the set of 6 or 25 cents for the three girls' charts or for the three boys' charts.  
 Well Born. (Two-reel film, showing time 30 minutes. Titles in English or Spanish.)  
 Our Children. (Two-reel film, showing time 35 minutes. Titles in English or Spanish.)  
 Posture. (Two-reel film, showing time 20 minutes. Either reel may be used alone, the first being a general introduction suitable for parents and children.)  
 Sun Babies. (One-reel film, showing time 15 minutes. This shows how to give sun baths in order to prevent and cure rickets.)  
 Trails That Lead to Mothers and Babies. (Film slide illustrating the work done under the maternity and infancy act.)  
 The Healthy Baby. (Film slide showing the care of the baby to 2 years of age.)  
 Rickets. (Film slide showing the effects of the disease and how it is prevented and cured.)  
 The Care of the Baby (50 lantern slides).  
 Infant and Child Welfare (54 lantern slides).  
 Maternity and Child-Health Center (model).  
 Children's Nursery (model).  
 City Playground for Children (model).  
 Demonstration of Posture Exercises (model).  
 Sun Baths for Babies (model).

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<sup>1</sup> Detailed descriptions of the exhibit material available from the Children's Bureau and the conditions and procedure of loan and purchase can be had on application to the bureau.

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